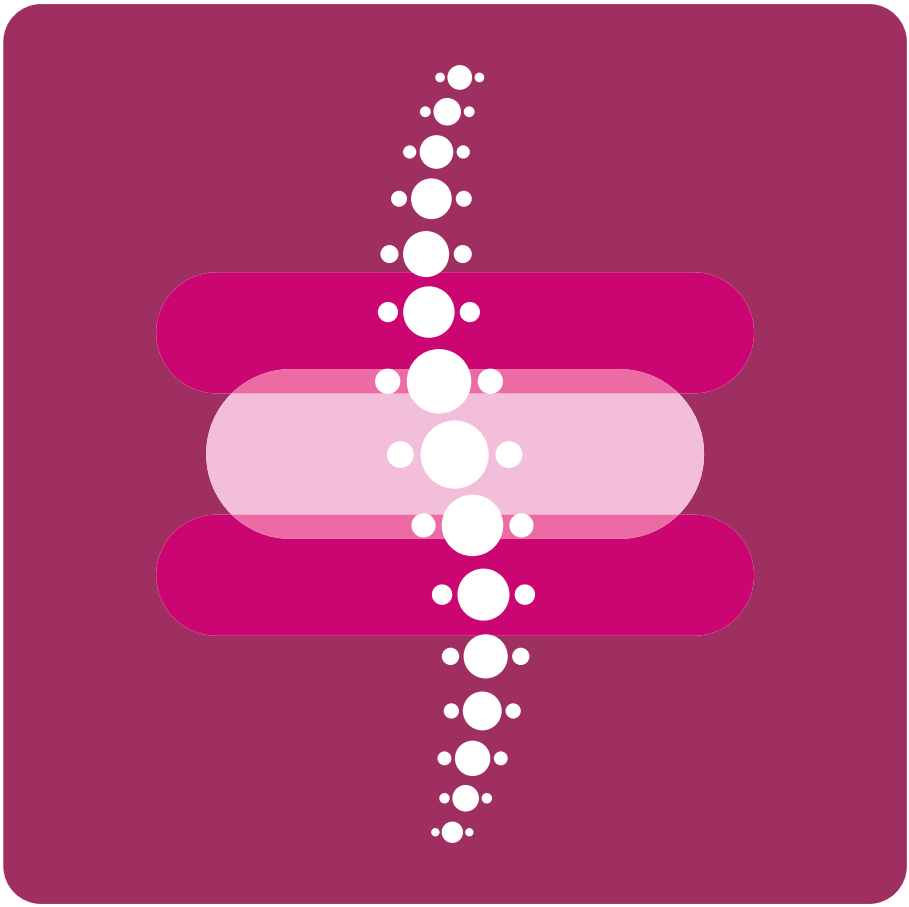
National Rehabilitation University Hospital

An tOspidéal Náisiúnta Athshlánúcháin

Bowel Care

After Spinal Cord Injury

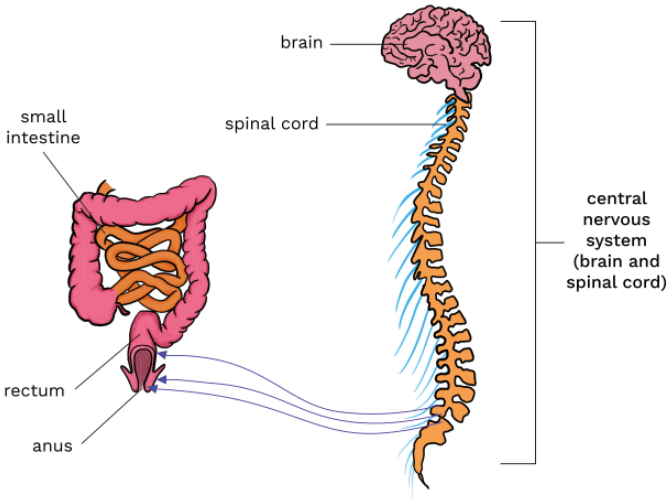
Booklet 3



Bowel care after Spinal Cord Injury

This is one of a series of booklets developed by the Spinal Cord System of Care (SCSC) Team at the NRH.

This booklet describes how spinal cord injury alters communication between the brain and the body, including the bowel. Spinal cord injury may damage the nerves that control bowel movements. Neurogenic Bowel is the term used to describe problems in the colon (intestine) including incontinence, constipation and diarrhoea. Bowel problems happen because of the loss of normal sensation and or control of muscles, that can happen following spinal cord injury.



Contents

How the bowel works

Normal bowel movements vary a lot. Some people have bowel movements every day and others may only have them a few times a week. In general, a bowel movement (or stool) should happen with little effort or urgency and without the use of laxatives.

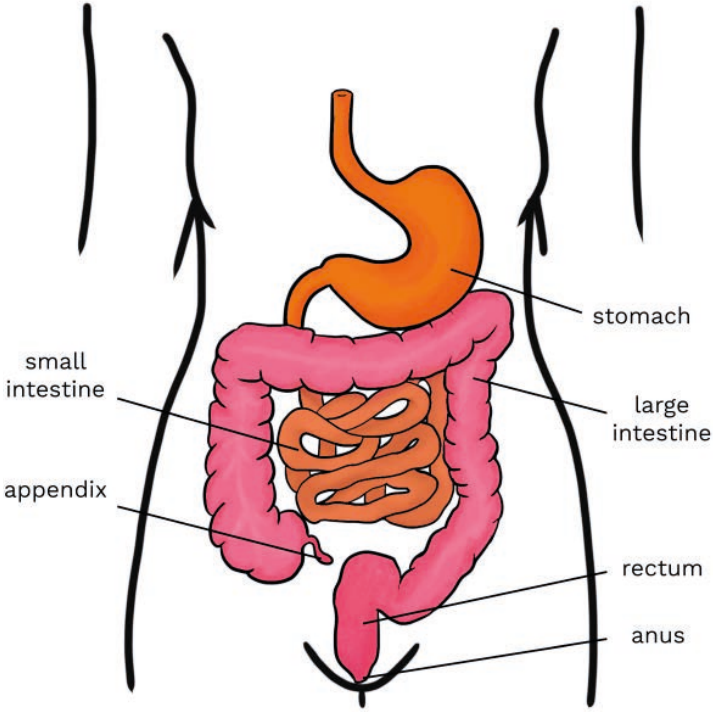
The Digestive System

In order to understand how the bowel works, it is important to understand the digestive system. The digestive system is a series of hollow organs joined in a long, twisting tube from the mouth to the anus. Digestion is important for breaking food down into nutrients, which your body uses for energy, growth and cell repair. After a spinal cord injury, digestion continues but the ability to control bowel movements may be affected.

Food is full of nutrients which give us energy and keeps us well. When we eat food, it moves to the stomach to be digested. Then it moves to the small intestine which draws out the nutrients into the bloodstream to be carried to the rest of the body. Digested food, not absorbed by the small intestine, moves to the large intestine.

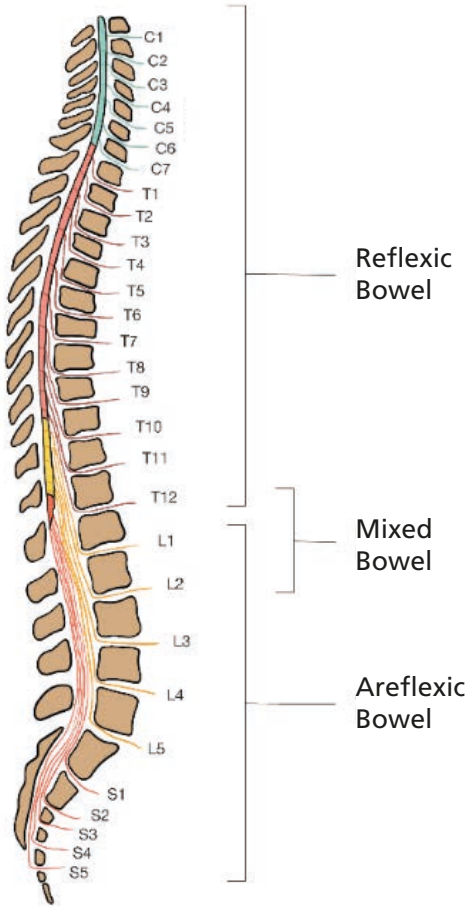
The main function of the large intestine is to absorb water and remove waste from the body. Waste is stored until it moves into the rectum and is expelled as a bowel motion. The rectum alerts the brain when it is full. The brain then sends messages to the bowel muscles to empty the bowel.

The Digestive System



How does SCI affect the way my bowel works?

After a spinal cord injury, the type of bowel function you have will depend on the type (complete or incomplete) and level of your injury. You will either have a **Reflexic Bowel**, **Areflexic Bowel** or **Mixed Bowel**, any of which can be referred to as a neurogenic bowel.



Reflexic Bowel: If your injury is at or above the T12 level you will probably have a reflexic bowel. The sensation of needing to empty your bowel will not reach the brain but it will reach the spinal cord. A sensory signal sent from the bowel travels to the spinal cord. The signal then loops back down along the nerves to the bowel muscles. The signal passes along a pathway called a 'reflex arc'. To stimulate the bowel to empty, you will trigger this reflex by using suppositories and or digital stimulation.

Areflexic Bowel: If your injury is at or below L1, you will probably not have a reflex action and bowel movement. This is because the rectal nerves at the end of the spinal cord are damaged so they cannot loop around to cause a reflex response and the bowel muscles do not squeeze and cause bowel movements. In cauda equina syndrome, you may have an areflexic bowel. Manual (using your finger) removal of stool may be needed to assist the bowel to empty.

Mixed Bowel: If your injury is between T12 and L2 you may have a mix of reflexic and areflexic bowel function. Your medical and nursing team will help you work out which method of bowel management is best for you to use.

What is a bowel programme?

A bowel programme means finding a way to manage your bowel that works best for your type of injury or illness. As the bowel is not functioning the way it did before your spinal cord injury or illness, it needs to be re-trained to work in a different way to achieve continence. An individualised bowel management programme helps to maintain a good quality of life. The aim of a bowel programme is to avoid constipation and to achieve regular and predictable emptying of the bowel, at a socially acceptable time and place, completed within a reasonable time (generally within one hour).

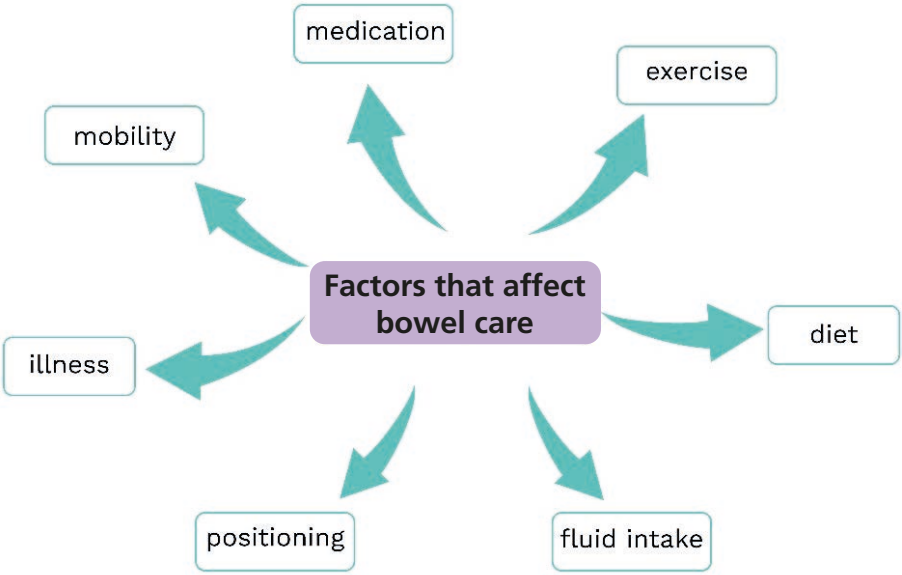
Learning to manage your bowel care can be challenging. Bowel management is usually a very private function and it can be difficult at first to discuss it with healthcare professionals. At the NRH, our main aim is to help you to establish an effective and regular routine that will prevent or minimise accidents and complications. It may take some time and some 'trial and error' before you establish a bowel programme which suits you and your lifestyle. You will be supported during your rehabilitation to establish a bowel programme that is suitable for you.

Goals of a Bowel Programme

- To establish regular bowel opening
- To complete a bowel movement within a one-hour period
- To minimise or eliminate unplanned bowel movements
- To improve confidence in work and social situations
- To help avoid complications such as constipation and diarrhoea

Factors that affect bowel care

Bowel care is affected by many factors including illness, diet, exercise, medication, mobility, positioning and fluid intake.

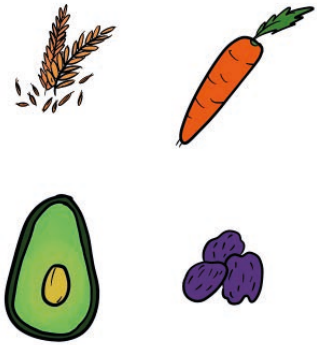


Dietary Tips

Dietary fibre: Dietary fibre (also known as 'roughage') plays an important part in bowel management. Fibre is found in wholegrain cereal foods (porridge, wholemeal bread or brown rice), fruits and vegetables. These foods are important for health and should be part of a healthy diet. Changing the amount or type of fibre in your diet may be needed to help you manage your bowel.

There are two types of fibre and each plays a different role in bowel management:

- **Insoluble fibre** passes through the digestive system intact. It helps you to pass waste more easily by making the stools bulky. This helps to prevent constipation. It is found in fruit skins, fibrous vegetables such as carrots and broccoli, wholemeal and wholegrain flour, breads, bran and cereals.



- **Soluble fibre** dissolves in water and forms a gel in the gut. It helps to keep stools soft, making them easier to pass, which may help prevent or treat constipation. It is found in oats, rye, beans, peas, lentils and the fleshy part of fruits and vegetables.

Depending on your bowel type you may need more or less fibre.

Tips to increase fibre in your diet

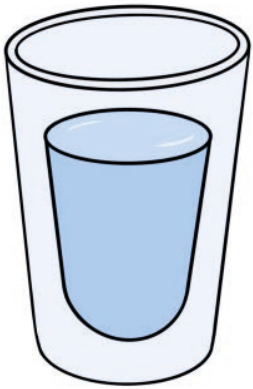
- ✓ Choose wholemeal bread
- ✓ Choose high fibre cereals such as porridge, Weetabix, All-Bran
- ✓ Aim to eat at least five portions of fruit and vegetables daily.
    - Slice a banana or apple over your cereal in the mornings
    - Sprinkle dried fruit over breakfast cereals
    - Try fresh fruit salad after lunch
    - Have vegetables or salad at lunch or tea
    - During rehabilitation, fresh fruit is available on request. Ask a member of staff on the Units

Tips to decrease fibre in your diet

- ✓ Use white bread
- ✓ Use lower fibre breakfast cereals such as Cornflakes or Rice Krispies
- ✓ Try to have five portions of fruit and vegetables daily. This will provide useful vitamins. If you are unable to tolerate this amount of fruit and vegetables, then you may require a multivitamin supplement. Your dietitian will be able to advise on this.

The importance of fluid

It is recommended that you drink approximately 1.5 - 2 litres of fluid (8 - 10 glasses) daily in order to prevent constipation. Increasing dietary fibre without drinking enough fluid can cause hard stool. It is important to introduce fibre gradually. Drinking enough fluid will help to reduce common side effects of increasing fibre too quickly, such as bloating and wind.



Keep a record of how much fluid you drink in a day. This can help you to see how much you are drinking. (Note that alcohol does not count as part of your fluid intake).

Stimulant food and drink

Some foods (called stimulant food or drink) such as alcohol; caffeine in tea, coffee, cola and chocolate; prunes and figs; pure fruit juice; and the sweetener sorbitol may over stimulate the digestive system and draw excess water into the gut. Consider reducing these types of foods and drinks if diarrhoea is a problem.

The dietitian can help and advise you about what foods to eat to help with your bowel management.

Medication

You may be prescribed laxatives while in the NRH to help manage your bowels. There are many different types of laxatives which work in different ways. Laxatives come in the form of suppositories, tablets, liquid and enemas. Some laxatives help stimulate the bowel and move the bowel motion into the rectum. Others help soften the stool to make it easier to empty the bowel.

Suppositories are used for people with a reflexic bowel – to help with emptying. Very occasionally, Microlax minienemas ® are used for some patients

Combinations of laxatives are usually tried to see which ones suit your bowel regime best (see table below for examples).

Softeners	Stimulants	Suppositories
Lactulose	Senokot ®	Glycerine
Movicol ®	Dulcolax ®	Dulcolax ®
Dioctyl ®		Microlax ®

Bowel management after discharge

During your admission, your bowel will be assessed to determine the exact type of neurogenic bowel you have, as a result of your spinal cord injury. You will receive education from the staff nurses and healthcare assistants on the management of your bowel. The aim is to have a well-established bowel programme before your discharge from the NRH - a programme that you can either manage independently or guide a healthcare professional or carer to perform for you.

Public Health Nurses or a healthcare provider can assist patients at home, who are not independent, with bowel care management. This is generally arranged prior to discharge from the NRH.

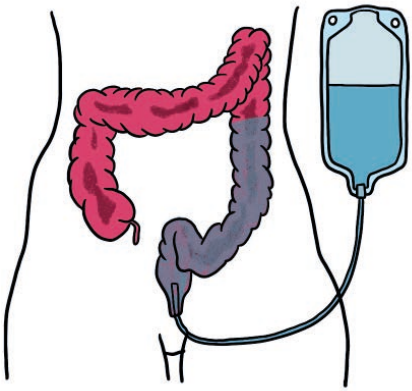
Training in bowel care management can also be provided to a family member and or carer if required.

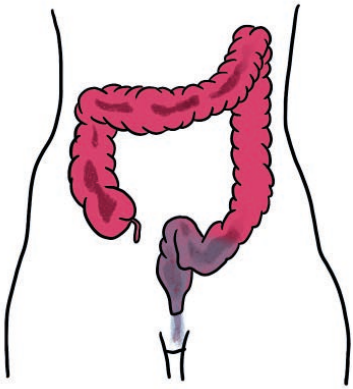
Alternative methods of bowel management

If a regular bowel programme doesn't work for you (if you are having accidents several times per week or it is taking too long to do your bowel care), you might want to consider transanal irrigation. This involves washing a quantity of warm water into the lower end of the bowel (rectum) to wash out the bowel motion. The disadvantages of this method are:

1. the risk of trauma (perforation) to your bowel
2. there are certain conditions where you cannot do this, for example, if you have bad haemorrhoids
3. there will be a cost if you do not have a medical card (GMS card).

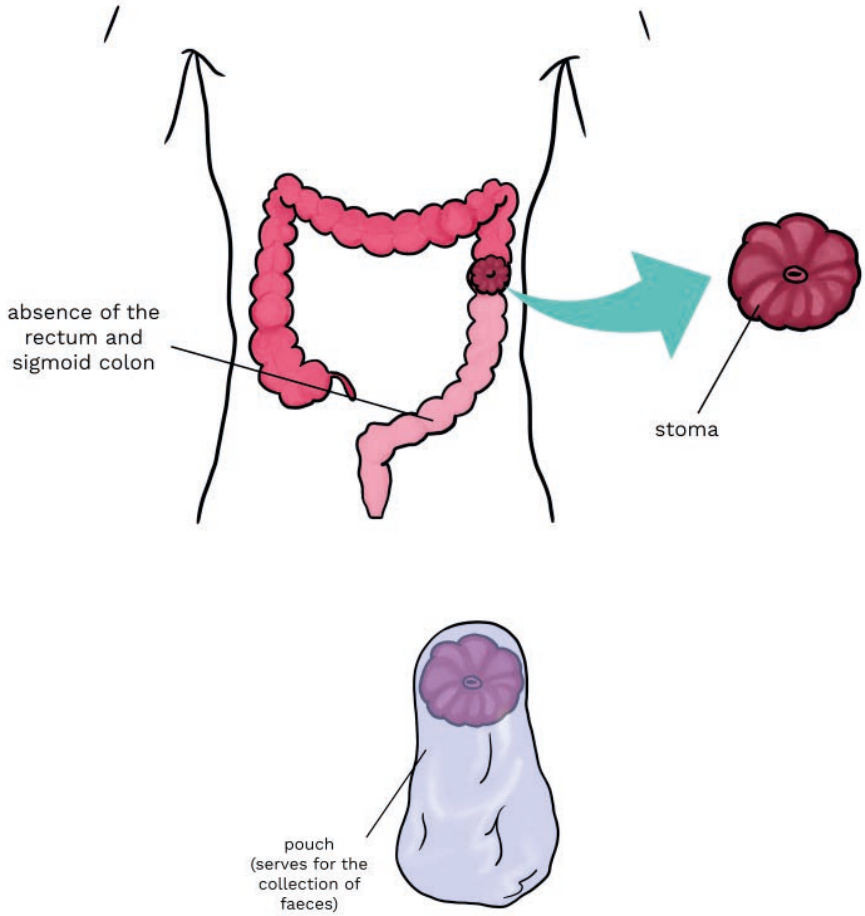
Finally, it is important to note that you will probably still need to take laxatives and eat a healthy diet, to ensure that the bowel motion has advanced far enough into the rectum to enable you to wash it out.





Finally, if you have tried both regular bowel care and transanal irrigation, and neither work for you, you might want to consider referral to a surgeon for a colostomy.

This might make life easier but is not a decision to be taken lightly as it involves surgery and we do not know the longer term impact, particularly for younger people who have a colostomy. If you are considering this, you should discuss it more with your rehabilitation doctor.



Bristol Stool Chart

Type 1 - Severe Constipation

Seperate, hard lumps, like nuts (hard to pass)

Type 2 - Mild Constipation

Lumpy and sausage like

Type 3 - Normal

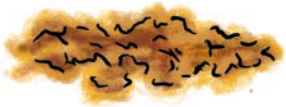
Sausage-shape with cracks in the surface

Type 4 - Normal

Like a sausage or snake, smooth and soft

Type 5 - Lacking Fibre

Soft blobs with clear-cut edges (passed easily)



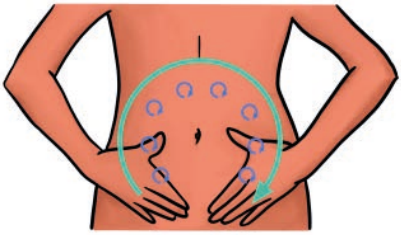
Type 6 - Mild Diarrhoea

Mushy consistency with ragged edges

Type 7 - Severe Diarrhoea

Liquid consistency with no solid pieces

Common Terms



Abdominal Massage: Pressure is applied intermittently to the abdomen in a clockwise direction along the usual lie of the large intestine, using the back or heel of the hand. Pressure is applied and released firmly but gently in a continuous motion around the abdomen (as instructed by your healthcare provider).

Bowel care programme: A planned intervention designed to ensure the regular evacuation of stool from the bowel.

Bristol Stool Scale: A scale used by healthcare professionals use that describes the consistency of your bowel results (see page 17).

Cauda Equina: The group of nerves that emerge from the end of the spinal cord and activate the bladder, bowel, sexual organs, and lower limbs. This group of nerves are often referred to as the 'horses' tail'.

Cauda Equina Syndrome (CES): Damage to the cauda equina. This can affect bowel, bladder and sexual function as well as sometimes causing weakness of the lower limb(s). CES can have a number of causes including a disc prolapse or a fracture of one of the lumbar vertebrae.

Colostomy: A surgical procedure which diverts part of the colon through an opening on the front of the abdomen. The opening is called a stoma. A stoma bag can be placed over the stoma to collect the stool. A colostomy can be permanent or temporary. This option will be discussed if it is appropriate for your bowel care programme.

Conus Medullaris Syndrome: Damage to the conus medullaris. This also can affect bowel, bladder and sexual function. However, it is a little different to cauda equina syndrome as you are less likely to have an areflexic bowel or bladder – it is equally likely to be reflexic or mixed.

Conus Medullaris: The tapered lower end of the spinal cord. It occurs around the level of the first lumbar vertebrae (L1).

Constipation: Is generally described as having fewer than three bowel movements a week or infrequent bowel movements that are difficult to evacuate.

Chronic Constipation: The bowel is blocked by hard impacted faeces, but some liquids manage to seep past the blockage. This condition is called 'overflow' diarrhoea.

Diarrhoea: Is passing loose or watery bowel movements three or more times in a day or more frequently than is normal for the individual.

Digital Rectal Examination (DRE): Refers to examination of the rectum by inserting a gloved lubricated finger into the rectum.

Digital Removal of Faeces (DRF): Refers to manual removal of stool from the rectum using a gloved lubricated finger (ask a member of your Team how to access the NRH Neurogenic Bowel Dysfunction video and booklet).

Digital Rectal Stimulation (DRS): DRS involves the insertion of a gloved, lubricated finger into the rectum followed by a gentle circular motion of the finger for at least 10 seconds to stimulate reflex evacuation of stool from the bowel.

Gastrocolic reflex: A reflex response to the introduction of food or drink into the stomach, resulting in an increase in muscular activity throughout the gut. This may result in movement of stool into the rectum in preparation for evacuation. Patients are advised to make use of this reflex by eating or drinking 20-30 mins prior to their bowel care programme. It is thought that this response is strongest following breakfast.

Neurogenic Bowel: The term used to describe the bowel, following nerve damage to the spinal cord (or brain). Neurogenic bowel dysfunction may be reflexic, areflexic or mixed:

Transanal irrigation: Refers to a specialised irrigation system designed to assist the evacuation of stool from the bowel by introducing water into the rectum. This can be demonstrated and trialled where appropriate.

Frequently Asked Questions (FAQs) about Bowel Care after Spinal Cord Injury

Who supplies me with my suppositories, bowel medications and bowel care equipment on discharge? What happens if I do not have a medical card?

Your suppositories and medications will be included in your monthly prescription supplied by your local pharmacist. Your Public Health Nurse (PHN) supplies you with gloves and incontinence wear. If you do not have a medical card, there is a charge for these suppositories, medications and equipment. There is a hardship scheme that may be available to you which can be facilitated through your GP and local pharmacist. Forms are available online **www.hse.ie** or at your local health centre.

How long will it take me to have a bowel movement following insertion of suppositories?

Suppositories usually work within 15-30 minutes (Follow the manufacturers guidelines).

How can I manage bowel care abroad ?

If you require assistance to complete your bowel programme abroad, there is a limited EU agreement to provide care.

Ask your local health centre or Community Health Organisation (CHO) area manager for more information.

Family members can be trained in bowel care while you are an Inpatient in the NRH if requested.

How do I manage a bowel accident?

This may be a challenging and often embarrassing situation. An individualised regular bowel programme will reduce your risk of accidents. However illness, dietary changes and certain medications may affect your bowel care programme. You will learn to recognise individual triggers that may lead to bowel accidents. If bowel accidents become a frequent event it may be helpful to discuss the problem further with your GP, public health nurse, the SCI liaison nurse or your rehabilitation doctor.

Can I change from a daily programme to an alternate day programme?

The best programme is generally well established before your discharge from the NRH. However, you can liaise with the SCI liaison nurse after discharge regarding possible changes to your specific programme.

What are the advantages and disadvantages of a bowel programme over a colostomy bag?

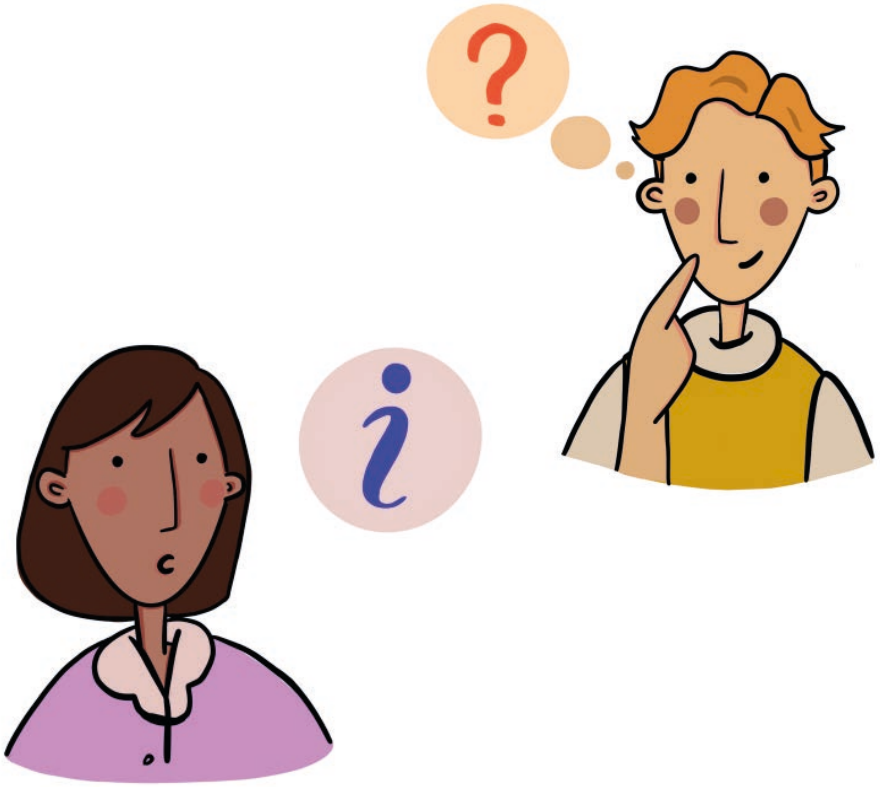
This should be discussed with your SCI Rehabilitation Consultant and team to determine your suitability for this procedure. It may be beneficial to talk with other spinal cord injured patients who have had the procedure.

Can I insert suppositories in the bed and then transfer onto the shower chair for toileting?

Yes, you may insert your suppositories in the bed and then transfer onto your shower chair. Some individuals choose to use incontinence wear during the transfer.

Can the way my bowel works change over time?

Yes it can. In fact, the way the bowel works changes with age for everybody. For example, it is common over time for a bowel programme to take longer and this can lead to constipation. It is important that you make adjustments to your bowel programme (for example, a change of medication) when needed. Changes to your bowel programme can be discussed with your healthcare provider.



My Bowel

My level of injury and ASIA Impairment Scale

_____

Type of Bowel?
Reflexic ☐ Areflexic ☐ Mixed bowel ☐

My Bowel Care Programme:

_____

_____

_____

_____

_____

Bowel Medication

_____

_____

_____

_____

_____

For more detailed information about managing a neurogenic bowel please see the NRH Neurogenic Bowel Dysfunction Booklet and video. **www.nrh.ie**

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