

# Bowel Management





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Slater and Gordon Lawyers are proud to be a Diamond Corporate Sponsor of the Spinal Injuries Association and a wider supporter of their services. By supporting the SIA, we understand the need to raise money which will go towards funding SIA's key services such as their Advice Line, website and peer support in the spinal injury centres, hospitals and wider community.

## WHAT IS SIA?

SIA is the national organisation for people with spinal cord injuries and their families. If you, a relative or friend is paraplegic or tetraplegic, or you are interested in our work, why not join us? Membership is free of charge and all new UK members will receive a year's free subscription to SIA's bi-monthly magazine *Forward*. An annual subscription to *Forward* is £20.00.

We also circulate a bi-monthly email newsletter, 'e-clips' to all who subscribe while our popular interactive website offers Chat Rooms and a Message Board as well as hundreds of pages of useful information.

We produce a wide range of publications (available to purchase) which deal with all aspects of living with spinal cord injury, e.g. books on bowel and bladder management, sexuality, publications for health care professionals, as well as sports opportunities. We also have an extensive series of Factsheets on a wide range of topics, and, for those pursuing a compensation claim; we publish a Directory of Personal Injury Solicitors.

Our Advice Line is accessible by e-mail, fax, post and telephone and provides accurate and up-to-date information on subjects including welfare advice, specialist equipment, legal rights etc as well as health related topics. We run an employment service, Workwise, for those wishing to return to employment or take up retraining or volunteering. Our Health and Ageing projects both work to improve the quality of life of spinal cord injured people and can be accessed via the Advice Line. Externally, our Peer Support Service, staffed by spinal cord injured people, operates at the Spinal Injuries Centres in England, Wales and Northern Ireland.

SIA also actively campaigns on vital issues affecting the everyday lives of disabled people, set out in our manifesto 'Campaigning for Change'. We are represented on major voluntary and statutory bodies and our own Governing Board is composed of spinal cord injured people. We have our own state-of-the-art premises, SIA House, which combines the twin principles of inclusive design and accessibility and from here we run the only specialist spinal cord injury Library in the country.

To find out more, or join us, please write to us at:

Spinal Injuries Association, SIA House, 2 Trueman Place, Oldbrook, Milton Keynes MK6 2HH or contact us on:

Tel: 0845 678 6633 (General Office – 9-5)  
0800 980 0501 (Freephone Advice Line (9.30-1pm & 2pm– 4.30pm))  
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# Bowel Management in Adults With Spinal Cord Injury

## Introduction

If you have a spinal cord injury (SCI), a reliable bowel management routine is vitally important, both physically and socially. Establishing an effective routine is essential in gaining the confidence and freedom needed to live an active life. When things are not working well you may, at best, feel anxious about accidents and at worst be quite ill.

Remember, there is no single infallible method to suit everyone - you may need to experiment quite a bit to find a method to suit your own needs and lifestyle. If you have severe problems, it would be wise to consult and discuss the matter with your own GP, District Nurse, Spinal Unit Community Liaison Nurse or Consultant before trying anything drastic as there may be another medical reason why you are having problems.

Before a spinal cord injury most people don't have to make special plans for bowel movements. They can feel the need to use a toilet, hold their bowels until the time is right, and then relax and let stool pass out at the convenient time and place.

An SCI changes the way your body works and how you will care for yourself. One important change is how the bowel works. After an SCI, bowel movements require more time, thought, and planning. Usually SCI people cannot feel when the stool is ready to come out, and need help expelling the stool; they need a well-designed bowel programme and a bowel care routine.

There are many reasons why it is important to have a bowel programme after an SCI. Most important are that a proper bowel programme can help prevent unplanned bowel movements (bowel accidents), and avoid complications, like constipation. A personalised bowel programme can help improve your confidence in social and work situations by putting you back in control of a bodily function that if neglected can cause embarrassment.

## Anatomy and Physiology of the Bowel

### How did my bowel work before my SCI?

The bowel is part of your digestive system, whose role is to break down what you eat and drink. After a meal is progressively digested, the left over waste products move from the stomach to the small intestine (or small bowel), into the large intestine (or colon). Here water is absorbed gradually to form the waste, (faeces), called bowel motions or stools. Stool consistency varies between hard lumps to very loose or mushy, depending how long the stools have been in the colon and how much water has been absorbed from them.

As the bowel fills with stool it stretches, triggering messages to bowel muscles to move the stool down to the end of the large bowel, and the rectum. Normally the rectum is relatively empty and does not fill on a continuous basis, but as a result of mass movements which happen from time to time during the day. These mass movements, or waves of contraction (peristalsis), are also triggered by a meal or hot drink entering the stomach; a message called the gastrocolic response (or reflex). Another message coming up to the brain lets it know when it's time to go to the bathroom to open the anus, and pass a motion. When it's socially convenient we will control our abdominal and pelvic muscles to allow us to empty the rectum to pass a motion. This is often called a bowel movement.

The colon is controlled mainly by nerves leaving the spinal cord at level of T6-T12 (lower thoracic vertebrae). These nerves control the movement of abdominal muscles. The lower end of the colon is controlled by nerves leaving the spinal cord lower down at level S3-S5 (sacral vertebrae). Some automatic (autonomic) control occurs within the bowel itself; this is the part that brings the urge to use the toilet when stressed or frightened.

### How is my bowel working after my SCI?

After a spinal cord injury, the messages sent by the nerves located in your bowel are not able to reach your brain as before your injury. This means you will not get the message that tells you the bowel is full and it's time to go to the toilet.

Another change is that you may not be able to move the muscle at the opening from your back passage that controls when you have a bowel movement.

Your degree of loss will depend upon your level of injury and the extent (completeness) of your spinal damage.

If your spinal cord injury is above T12, your bowel will continue to empty when stimulated, but you will lose the control you normally had from your brain. With this type of injury, the message telling you the bowel is full is not received; the muscle controlling the opening and closing of the anus stays tight. When the bowel gets full it empties automatically. This is called an upper motor neuron type bowel or reflexic hypertonic bowel.

If the injury is at or below T12, your bowel will not fully empty, even when stimulated. This is because the damage to the cord has damaged the pathways from the bowel wall into the reflex centre in the spine. Therefore, there cannot be any reflex action. That means your reflexes do not work normally and the anal muscles stays relaxed. Injuries below T12 result in a lower motor neuron type bowel or flaccid hypotonic bowel.

If your injury is incomplete or is around T12, you may find that your bowel can take on mixed upper and lower motor neuron type functioning.

# Bowel Management in Adults With Spinal Cord Injury

## How will my bowel be managed during the acute phase of my SCI?

Immediately after the spinal cord injury, during the spinal shock phase, there will be a paralytic ileus. This is a state when the intestines stop propelling the stool. The exact cause of this ileus is unknown, it is thought to be probably due to autonomic nervous system disruption. Onset is usually immediate in those who have sustained thoracolumbar injuries, and may take up to 48 hours to develop in patients with cervical injury.

This ileus will be treated by continuous suction via a naso-gastric tube. Aspiration will be performed with extreme care due to suction effect and resulting possible damage to the gastric mucosa. Prophylactic administration of intravenous medication will diminish the risk of development of gastric ulceration during this acute phase. Observation of bowel sound will be performed frequently during the first couple of days. You will not be fed until bowel sounds have reappeared, signifying disappearance of the ileus. Intravenous fluid infusion and total parenteral nutrition will usually be initiated should an ileus be prolonged for three to five days.

During the period of spinal shock the bowel will be flaccid in all patients. Daily rectal examination will be performed and manual evacuation will be necessary to empty the rectum. When bowel sounds return, passage of flatus occurs or bowels move. Suppositories (usually Glycerin) will be inserted. If there is no bowel movement, manual evacuation will continue. Laxatives may be started as soon as you are allowed to eat and drink freely. Daily rectal examination and alternate daily manual evacuation will last until rectum achieves proper emptying. This phase may last from a couple of days up to six weeks. An assessment of your bowel will then allow design an individualised bowel programme, which will include teaching you how to care for your bowel.

## How will I have a bowel movement after the acute phase of my SCI?

You will need to train your bowels to have a bowel movement at the time you want. A personalised bowel programme and bowel care will be set for you, looking at: timing; privacy; position; diet; fluid intake; activity level; assistive techniques and medications.

Some people find that with a good diet, plenty of fluids and finger stimulation of the rectum is all that is needed to achieve a bowel movement. Some SCI people find attend to their bowels every other day works for them. If they decide to take a laxative the night before, the stool will move to the lower bowel and rectum ready for emptying the next morning. Although some people use laxatives, not everyone needs them. Although not always possible, the ideal is to use as little as possible or none at all. As long as the stool is formed and the result is good with no bowel accidents in-between, then the choice is right.

You and your rehabilitation team will decide which bowel programme is best for you, based on the type and extent of your spinal cord injury. The bowel programme will outline the steps you need to take in order to have a bowel movement that fits with your lifestyle.

## Designing a Bowel Programme

### How will my bowel function be assessed after my SCI?

Early in your rehabilitation an assessment of your impairment, disability and handicaps will be done. Identification and characterisation of your bowel function will also be performed.

Most of the time this assessment will not require any special tests, however, sometimes physiological testing, such as a colon transit time study is needed.

Colon transit studies are useful for objective assessment of the gut transit. They are usually performed by using swallowed radiopaque markers. Patients are given one capsule daily for three days. Each capsule contains a different radiopaque marker. An abdominal X-ray is done on the fifth day and markers are located and counted.

This test gives information to either confirm slow gut transit or, as shown here to demonstrate a delay in the left colon with potentially impaired defaecation.

To find what works best for you, your healthcare professional may ask you to keep a bowel diary, or a bowel record, over two to three weeks. It's most helpful to keep a bowel diary in the first weeks after you leave the hospital, whenever you are having problems, and a few weeks before your annual check-up.

### What is a bowel diary?

A bowel diary is the precise recording of your daily bowel function. It is designed to collect information on your bowel habit.

Every time you do your bowel care you will be asked to record important details such as, assistive techniques (gastrocolic response, bending, lifting, push-ups, Valsalva); stimulation method used (digital or chemical rectal stimulation); the scheduling and exact timing of your bowel habit (start time of stimulation; time the first stool begins to come out of the anus; time when the last stool comes out); stool amount, consistency (hard, firm, soft, liquid) and colour (especially anything unusual for you)

Also list any problems with your bowel, such as unplanned bowel movements, abdominal cramps, pain, muscle spasms, pressure ulcers, rectal bleeding and lots of gas or bloating.

You will also give comments about your diet (fibre amount), your daily fluid intake, your activity level, and all the current medication you are on. All this information will help to precisely assess your bowel programme.

A sample Bowel Diary is shown in Appendix 1

### What is a bowel programme?

A bowel programme is a personalised plan designed to help you regain control of your bowel after your cord injury and improve your quality of life. Consideration is given to several aspects in establishing your own bowel program: timing; privacy; position; skin care; diet; fluid intake; activity level; assistive techniques and medication use.

It will be reviewed at least once a year to make sure it is working well for you.

A bowel care diary is a key part of this review. Keep your completed bowel care records in a notebook, folder, or other handy place and take them with you when you visit your healthcare professional.

# Bowel Management in Adults With Spinal Cord Injury

## What is a bowel care?

Bowel care is the term for assisted elimination of stool and is part of your bowel programme. It begins with starting a bowel movement, which is frequently done with digital stimulation and/or with using a rectal stimulant (suppository or mini-enema).

Bowel care includes all techniques, manoeuvres and medications applied to achieve efficient and satisfactory stool evacuation.

You need to be able to perform the bowel care yourself or direct an attendant or other carer on when and how you need help.

## Can I be independent in my bowel care?

Independence in performing bowel care depends on many factors such as the level and completeness of your SCI, your general health, how strong you are, and how much you want to be independent.

For complete independence, your arms, hands and fingers need to be strong enough to manage your clothes, get you into a proper position, and carry out digital stimulation and place stimulant medication alone. Most people with a thoracic, lumbar, or sacral injury are strong enough and have sufficient balance.

Some people with a cervical injury at C6, C7 or C8 levels may not have enough hand strength or sitting balance to do digital stimulation, insert a suppository or a mini-enema independently. Special devices like digital stimulators and suppository inserters can help with these activities.

Even if they can carry out bowel care themselves, some people choose to have a carer do it for them. They find that it takes too long, or it simply takes too much energy they would rather use doing other things. Whether or not you do your own bowel care, you still need to manage your bowel programme. That means watching what you eat and drink, your activity level, your medications, and the results of your bowel care routine. If you need assistance with your bowel care, learn the process so that you can teach it to carers and supervise your own care.

## Why is timing important for my bowel management?

To a large extent, whilst you are in hospital your bowel management will need to fit with the ward routine. Once you are discharged you will perform your bowel care in the morning or the evening to fit in with your daily life, your individual arrangements, or with carers if you need them. A regular and consistent time to perform your bowel care will train your bowels and help you be more confident in your bowels and not ruled by them.

Choose a set time of day for your bowel routine. If possible, establish a plan in which you empty your bowels daily or every other day. Regularity is a must, if the schedule is more than three days; fluid can be absorbed from your stools and result in hard stools causing constipation and impaction.

Work out the time of day most convenient to fit into your lifestyle in terms of job, school, or general social needs. For instance, if you have to rise early to go to work and have little time, you may find it best to arrange your programme in the evenings. If you need to alter the time of your routine, a changeover can be made - for instance, from evening to morning or vice versa - but be aware that that you should allow for a two to four week readjustment period. Initially during this period expect your routine not to be so reliable.

## Bowel Management in Adults With Spinal Cord Injury

If possible, use the gastrocolic response. You may have to take a laxative approximately 8-12 hours prior to bowel evacuation. Everyone's body changes over time, even if you have kept a regular bowel programme for years, it may stop working as well as it did and you may have to adapt your scheduling.

### **Why is activity level relevant?**

Try to keep as physically active as possible even when in bed for long periods. This increases abdominal muscular tone and stimulates peristalsis. Abdominal muscle exercises may help peristalsis, if you can do them. Try to contract and relax your abdominal muscles by breathing in deeply and pushing or bearing down. Being as independent as possible in activities of daily living such as bathing, dressing, transferring from your wheelchair etc. will help in providing regular exercise.

# Bowel Management in Adults With Spinal Cord Injury

## Importance of the Diet

### What is the gastrocolic response?

The gastrocolic response is a sort of "natural reflex" of the bowel that stimulates waves of peristalsis, speeding up the movement of waste matter in your bowel within 30-40 minutes of eating a meal or having a hot drink. Drinking warm liquids or eating a meal shortly before your bowel care may help to stimulate a bowel movement. This can be useful when organising a convenient time for your bowel emptying.

### Why should I watch what I eat?

Diet plays a very important role in establishing a good bowel routine.

Frequency of bowel emptying and stool consistency is directly related to the quantity and quality of foods eaten. What you eat and drink will affect your bowel movements. Stool consistency is often a key factor in the success or failure of a bowel programme. An important part of your diet is the amount of fibre you eat. Foods that have a lot of fibre can absorb and retain liquids and help make your stool more soft and easy to pass. Try to eat well-balanced meals at regular times each day. Once the right balance is established, the need for medication might be reduced and bowel management can become easier.

### What is a food record?

A good way for you to understand and learn how different foods affect your bowel is to keep a food record. For about three weeks, you could write down what you eat and drink each day and describe your bowel movements.

A sample food record is given in Appendix 2.

### Where can I find natural fibre?

Fibre provides the bulk necessary for evacuation of the bowel content and helps to increase movement through the bowel, the intestinal peristalsis. Adequate fibre intake maintains soft consistency of your bowel motions and can prevent you from becoming constipated. It is best to get the dietary fibre you need from a variety of food sources. If you use fibre to vary the consistency of your stool, you will have more total stool and may need to do bowel care more often. Because fibre absorbs water, it is important to drink enough fluid. The recommendation is to drink about 2 litres (eight 8oz glasses) of water or other liquids per day.

The following foods are high in residue, bulk and fibre:

- Raw fruit and vegetables.
- Whole fruits with skins e.g. stewed prunes, apricots or figs.
- Dried fruits, rather than peeled fruits and juices.
- Vegetables with long fibres e.g. greens, celery, etc. and nuts.
- Whole grain cereals and dark breads rather than white.

Although no definitive studies have been done in SCI people, a change of only 25% in the amount of fibre in the diet could cause a significant change in stool consistency. A starting goal of at least 15 grams of fibre each day is advised as part of a healthy diet.

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The following table gives a general idea of how much fibre is in different types of food.

	Quantity	Grams of fibre
<b>Vegetables</b>		
Beans, baked	1/2 cup	8.8
Beans, cooked	1/2 cup	5.0
Dried peas, cooked	1/2 cup	4.7
<b>Fruit</b>		
Apple (with skin)	1 medium	3.5
Prunes	3 medium	3.0
Orange	1 medium	2.6
Banana	1 medium	2.4
<b>Cereals</b>		
Bran flakes	1/3 cup	8.5
Raisin-bran type	3/4 cup	4.0
Shredded wheat	2/3 cup	2.6
<b>Breads</b>		
Bran muffins	1 muffin	2.5
Whole wheat bread	1 slice	1.4
Bagels	1 bagel	0.6
<b>Milk &amp; dairy products</b>	Any amount	0.0
<b>Meat, fish &amp; seafood</b>	Any amount	0.0

Certain foods may cause excessive gas, so substitutions or decreased intake may be necessary. If you can't eat as much fibre as your healthcare professional suggests, you may want to try fibre supplements: natural vegetable powders, like psyllium. You can get them at your local health food shop, drugstore or supermarket.

### How do I increase my fibre intake?

An increase in fibre is recommended only if it is necessary to produce a soft-formed stool.

You need to recall how much fibre you usually had in your diet before the SCI and how much you eat now. A food record may help. Not everyone benefits from a high fibre diet.

If you want to increase your intake of fibre, consider:

- Eating whole meal bread, buns and rolls, not white.
- Having a high fibre breakfast e.g. bran flakes, Weetabix<sup>®</sup>, muesli, porridge, oat bran or soya bran.
- Cooking potatoes in their skins and eating the skins.
- Eating more vegetables, salads and fruits (dried fruit is good).

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- Using more pulses (peas, lentils etc.). Adding to stews, casseroles and salads.
- Eating more seeds (linseeds, sunflower seeds, pumpkin seeds).

Gradually increase fibre intake over a period of four to six-weeks period to prevent a bloated feeling and too much gas.

### Should I avoid any food or beverages?

Everyone responds a bit differently to different foods and beverages. You may find that:

- Particular foods and beverages are disturbing to you
- Onions, cabbage and beans form gas, inducing bloating and excessive flatus
- Spices and alcohol can be responsible for diarrhoea and bowel accidents.
- Coffee and tea are bowel stimulants and can contribute to diarrhoea or faecal incontinence.
- Cold carbonated beverages can cause loose motion and bloating.

If your food record shows that some of these foods or beverages cause problems, consider eliminating them from your diet.

### What kind of food may cause excessive gas or bloating?

Gas in the stomach is composed of swallowed air. Flatus composition is determined largely by dietary intake of carbohydrates and the metabolic activity of colonic flora (bacteria). Arrival of carbohydrates into the colon may occur as a result of maldigestion of non-absorbable carbohydrates, consumption of poorly absorbed carbohydrates, or mal-absorption of dietary starches. Excessive gas in the digestive tract may cause uncomfortable feelings of fullness, bloating, and pain. It is very rarely an indicator of a disease. If you're having problems with too much gas, you may want to cut back on or cut out foods associated with gas.

Here is a table of some foods causing excessive gas.

Vegetables				
Beans	Cucumbers	Pimientos	Broccoli	Leeks
Radishes	Brussel sprouts	Lentils	Shallots	Cabbage
Onions	Soybeans	Cauliflower	Split peas	Black-eyed peas
Turnips	Corn	Peppers		

Fruits:				
Apples (raw)	Avocados	Watermelon	Melons	

If some of these foods cause problems with gas, consider eliminating them from your diet.

# Bowel Management in Adults With Spinal Cord Injury

## What can I do against excessive gas or bloating?

Passing gas is just as embarrassing now as it was before the SCI. Some gas smells bad, and some doesn't. Your gas will probably smell bad after you eat food that's high in protein, such as meat, fish, or eggs. If you eat a vegetarian diet, your gas probably won't smell so bad, but you'll have a lot of it. Excessive bacterial breakdown of bowel contents than is usual for you, or intolerance to dairy products (Lactose intolerance) can also cause bloating. Discuss these matters with your GP as medications can sometimes be quite helpful. You may try simethicone tablets to help relieve discomfort from excessive gas.

### Think about your surroundings:

Release gas at appropriate times and places. Fans help remove odours, good ventilation, such as plenty of windows or table-top fans, also helps.

Deodorant spray, room deodorizers or air fresheners can mask the odours. Striking a match can also mask the odour.

Do push-ups or lean to the side to release gas when alone or before meeting with people.

### Think about how you eat:

Excessive gas may be due to swallowing excessive air while you're eating or drinking. Eat your food slowly, chew with your mouth closed, try not to gulp your food and don't talk with food in your mouth. Seeing a speech therapist may help.

### Check foods that can cause gas:

Remove specific foods from your diet, one at a time, do this until you've learned which, if any cause you to have gas, cut down on those foods.

### Check your bowel programme:

Increasing the frequency of bowel care may reduce the amount of stool you store in your colon to produce gas.

Carry out digital stimulation daily in the morning or evening.

### Don't try too hard to hold in the gas, it can give you a stomach-ache or headache.

Remember: Passing gas means your digestive system is working right. It was OK to pass gas before your SCI; it's still OK to pass gas now.

## What kind of food may cause diarrhoea?

There are no foods that cause diarrhoea in everyone. Some people find fatty, spicy, or greasy foods to be related to diarrhoea, others report that caffeine in coffee, tea, chocolate, cola, and soft drinks appears to cause soft or loose motions. If you have episodes of diarrhoea, keep a food record of what you eat and drink to help identify your sensitivities. Diarrhoea-causing bacteria can contaminate different foods as well.

# Bowel Management in Adults With Spinal Cord Injury

## How much and what should I drink?

Fluid intake should be encouraged in any individual. Obviously people need to maintain a fluid intake sufficient to replace body's losses (urine, transpiration, respiration, and stool). Fluid balance is dealt with by the renal system (kidneys). So when renal function is normal, increasing fluid intake rinses the kidneys rather than the colon, and this increases urine production and the need for bladder emptying, rather than softening the stool.

It is frequently observed that people with bladder problems may drastically restrict their fluid intake. As adequate fluid balance is essential for life, the body will fight to prevent dehydration of the whole body. The colon will work out to extract as much fluid from the stool as possible. Hard pellets stool and constipation will then happen. So, you need to drink plenty of fluids every day to keep your stool soft and to prevent constipation. Drinking enough is especially important if you're trying to eat more fibre.

Fluid intake should take into account your bladder regime. Some people may need to limit how much they drink because of their bladder programme, kidney or cardiac problems. If that's true for you, talk with your healthcare professional about a good daily fluid goal that will work for both your bladder and bowel programmes. As a general rule your fluid intake should be kept to at least around 2 litres per day. If you exercise a lot or the weather is hot, you will have to drink more.

## What should I know about drinking coffee, tea, cocoa or soft drinks?

Drinks like coffee, tea, cocoa, or soft drinks contain caffeine, a diuretic. That means it may move the fluid out of your body. In fact, diuretics can cause you to lose more fluid than you drink. There is some evidence that ingestion of caffeine stimulates peristalsis in some people. You may want to consider keeping caffeine drinks to a minimum.

## What should I know about drinking alcohol?

Alcohol affects bowel function. It can change bowel habits and cause problems for people with SCI. Excessive alcohol consumption can reduce appetite, making it hard to stick with the diet part of your bowel programme. It can cause problems in keeping up with your bowel care schedule. If you're having trouble following your bowel programme because of alcohol use, your healthcare professional needs to know in order to help you.

## What should I know about smoking?

There is some evidence that smoking directly affects colonic function. It seems that nicotine can stimulate peristalsis in some occasional smokers and decrease it in some habitual smokers. For these reasons (and many others), you may want to consider stopping smoking.

## Components of Bowel Care

### What should I know about privacy?

Bowel problems are very common in people with SCI, but it is often difficult for people to discuss these issues with anybody, even their physician. With proper care, many bowel difficulties can be prevented, and with proper knowledge and assistance from a caring professional who understands problems associated with SCI, most bowel problems can be treated satisfactorily. It should be possible for you to achieve regular, efficient bowel emptying and maintain continence and dignity. In hospital bowel management can be a very stressful experience. Staff would certainly appreciate any valid suggestions as to how they can minimise your embarrassment. When back home, if carers, family members or friends are involved in your bowel care, this issue should be thoughtfully addressed.

### Why might be my position important for my bowel care?

Because gravity assists stool expulsion and peristaltic activity is greater when upright, if possible sit in the normal sitting position for bowel emptying. Some people transfer onto a padded toilet seat; others prefer to use a shower chair over the toilet or a cushioned commode. Being able to sit on a toilet tends to allow more privacy. Generally speaking, people with spinal cord damage at C5 level and below can manage to sit on a toilet whilst those at C4 and above are managed in bed due to loss of balance and difficulty in transferring from chair to toilet.

Position will depend upon how much balance you have, the level of your injury, your weight (being overweight can sometimes lead to problems), your skin condition, and spasms. The most comfortable position may be affected by your tolerance to sitting, what assistance is available, and availability of appropriate equipment. You may find it useful to have side grip rails fitted, hoists, footstools or footrests if your balance is not too good. If you can't conveniently sit upright, you can have your bowel routine completed in bed. If you manage your bowels in bed, it is better to insert suppositories whilst lying on your left side because the natural angle at which your bowel lays, and gravity helps absorption of the stimulant, and it will help the rectum to empty completely.

### How to carry out a manual evacuation?

Manual evacuation aims to empty the rectum with the fingers, more properly described as "the digital removal of faeces". This procedure can be carried out either on the bed, commode or toilet. This will be taught individually to suit you. If you perform it in the bed it is better to lie on your left side with your right knee bent up slightly and resting over your left leg.

Wash your hands. Ensure that finger nails are trimmed, as they can puncture the glove and damage the rectum. Put on gloves.

By slowly and gently pushing against the anal sphincters, insert a well-lubricated gloved finger (e.g. K-Y jelly), one to two inches gently into the rectum toward the belly button. Use one or two fingers to break up or hook stool and gently remove it from your rectum. Continue to remove the stool until you cannot feel or reach any stool in the bowel.

## Bowel Management in Adults With Spinal Cord Injury

Wait a few minutes and check your rectum again to make sure that you emptied it of stool. If any faeces do come down, continue the checking routine every 5 minutes until all faeces are removed and the rectum is empty. If little faeces pass or no result occurs, try again after 20 minutes. If that fails, you may have to undertake finger stimulation or to use a suppository.

### What to do if my nurse refuses to perform manual evacuation?

Manual evacuation has often proved successful during the stay at the local spinal cord injuries unit and at home. However, when spinal cord injured people are admitted to general hospital or when they go back to their local community, they can face problems to maintain their routine bowel care. Ward nurses or district nurses might refuse to perform manual evacuation or may want to change this part of the bowel care. A nurse unfamiliar with manual evacuation may need additional information and training.

Different issues have to be addressed:

Only a trained person should perform this procedure.

If the nurse has never been shown how to do it, you may suggest that she/he should consult the nurse manager in order to get the opportunity to learn how to undertake it.

If the nurse refuses to perform it claiming it is illegal, you must explain that this procedure is not illegal and suggest that she/he should consult the United Kingdom Central Council for Nursing or her Professional Code of Conduct.

If the nurse decides not to perform it and prefers to change your bowel care thinking manual evacuation is inappropriate, you should ask her/him to consult your GP or your local spinal injury unit first.

You could suggest that inappropriate adjustment of your established bowel management programme can have serious consequences for your health and lifestyle.

Ask your local spinal unit to write down the details of your bowel care.

It is very important for you to recognise that the nurse is acting in your best interests. You should be able to reassure the nurse that manual evacuation is acceptable and appropriate for your individual care needs. Suggesting a consultation or a phone call with someone with more experience in the field of cord injury is helpful most of the time.

### What are the medico-legal and ethical issues of manual evacuation?

Manual evacuation is a procedure that requires an informed consent. This means that:

The person performing manual evacuation should be fully trained to do it.

If the person is not knowledgeable and competent to perform this procedure, you should not allow her/him to perform it.

Full responsibility will be given to a person performing this procedure when found to be able to perform it in a skilled manner.

Appropriate and intelligible explanation must precede this procedure, which should be accepted by the individual or guardian.

Respect of the intimacy of the individual must be provided during the full procedure.

# Bowel Management in Adults With Spinal Cord Injury

## What is digital stimulation?

Digital stimulation is a way to turn on peristalsis in the colon, to start a bowel movement, and to keep it going. This method uses a finger or a stimulant tool to relax and open the anal sphincters and to trigger peristalsis. Many cord injured people (upper motor neuron or reflexic bowel) need to start bowel care by stimulating the rectum to eliminate stool. If you have a high lesion, you might need assistance in doing it. There is another method of rectal stimulation which relies on a pharmacological agent (a suppository or a mini-enema) to trigger the emptying of the left colon.

## How to carry out digital stimulation?

Wash your hands.

Ensure that finger nails are trimmed, as they can puncture the glove and damage the rectum.

Put on gloves.

By slowly and gently pushing against the anal sphincters, insert a well-lubricated (e.g. K-Y jelly) gloved finger, one to two inches gently into the rectum toward the belly button.

When the finger is inserted digital stimulation can begin. Move the stimulating finger gently in a circular motion, keeping the finger in contact with the rectal wall and toward the spine to prevent injury to the bladder. Digital stimulation usually takes twenty seconds and should be done for no longer than one minute at a time. Rotate your finger a couple of times and withdraw it to see if any faeces come with it. Always wait a couple of minutes as the stimulation can cause further bowel movements.

From the time you start digital stimulation, it should only take a few seconds to a few minutes for stool to enter the rectum and come out.

Repeat the digital stimulation every five to ten minutes until you have a bowel movement. If the rectum is empty then clean the anal area and proceed with your usual routine. If any faeces do come down, continue the checking routine until all faeces are removed and the rectum is empty. If little stool pass or no results occur, try again after ten to twenty minutes. If that fails, you may need a suppository.

As a general rule, avoid performing more than four digital stimulations at a time.

## Are digital stimulation and manual evacuation dangerous?

Digital stimulation and manual evacuation may trigger autonomic dysreflexia.

The first time when both procedures are performed careful attention should be given to any symptoms suggesting autonomic dysreflexia, and appropriate measures taken if needed. Manual evacuation performed forcefully in a person with impaired sensation can be associated with injury to the anal sphincters. In some patients, this may contribute to sphincter weakness. At every stage of digital stimulation, it's important to use plenty of lubricant and to be gentle. Pushing or rotating the finger too roughly can irritate or tear the rectal lining. Make sure you have short nails. Both techniques should be learned under supervision and performed by well-trained people. If then performed carefully these techniques are very efficient and not dangerous.

# Bowel Management in Adults With Spinal Cord Injury

## Are there other ways to facilitate bowel care?

Your healthcare professionals may suggest a number of tips or assistive techniques to improve your bowel care results.

The most common ones are:

- **Abdominal massage**  
May help move stool through the colon to the rectum. Rubbing or running a hand firmly over your stomach may help to stimulate your bowel. Before a bowel care routine you could try massage of your abdomen starting from the lower right side across the top and down to the lower left side, in a clockwise motion.
- **Bending**  
Helps change the position of the colon and expel stool. For this, you need either a lap safety belt if you are using a commode chair or enough control of your upper body to be able to return to a sitting position after you bend forward. If you have a low level lesion, and a flaccid bowel which will not respond to stimulation by suppositories, you may be able to use abdominal muscles to push.
- **Push-ups**  
May help move stool into rectum. If you have strong arms, you can raise your hips off the commode chair seat, as if doing a pressure release or do forward and sideways bending with Valsalva manoeuvres.
- **Valsalva technique**  
Can help you increase pressure around the colon to push stool out. Before doing this check with your healthcare professional, especially if you have a history of heart problems. It works best with people with a reflexic bowel who have control over their abdominal muscles. A tight elastic band around the abdomen may aid increasing the abdominal pressure. Breathe in and try to push air out, but block the air in your throat to increase the pressure in your abdomen. Try to contract your abdominal muscles as well. Use gentle Valsalva to bring stool down before and after each manual evacuation. Repeat for 30 seconds at a time on and off until all the stool is expelled.

Any technique should be adapted to your special needs and discussed with your healthcare professional.

## What should I know about side effects of medications?

Medications that you take can affect your bowel function. You should be aware of the possible side effects of any medication that you are prescribed. Some can help your body pass stool regularly; others can make regular bowel movements difficult. For example, painkillers and sleeping tablets will slow down bowel movements and may cause you to become constipated. On the other hand, some antibiotics will have the opposite effect, giving loose motions and sometimes causing diarrhoea. Below is a list of some medications potentially affecting your bowel.

Medications which may cause constipation are given on the following page.

# Bowel Management in Adults With Spinal Cord Injury

Medications which may cause constipation:

- bladder antispasmodics drugs (oxybutynin, propantheline)
- antispastic drugs (dantrolene sodium,)
- painkillers (opioids, narcotics, NSAID's)
- codeine-containing cough suppressants
- antidepressants (tricyclic), psychotropic and tranquilizer
- anti-parkinsonism drugs
- antihistamines drugs
- aluminium-based antacids
- diuretics
- anti-hypertensive drugs
- anti-cholesterol drugs
- Medications which may contribute to bowel accidents:
- any laxatives incorrectly prescribed
- antibiotics
- magnesium-based antacids

## What is the goal of medications in the bowel programme?

The goal when prescribing medications as part of a bowel programme is to:

- Assist other techniques of bowel care
- Help to maximise confidence, independence and timing (maintain a good quality of life)
- Prevent complications (constipation, impaction, leakage)

You will learn, by trial and error what medicines you need to make your bowel programme work for you. Your body will let you know what you need. Your GP and specialist will do their best to prescribe the fewest medications possible. Before taking any products regularly, discuss them with your healthcare professional to learn how to use them safely for the best results. When determining the most appropriate medication, you should consider:

- effectiveness (time for evacuation)
- absence of evacuation problem)
- tolerance (adverse reactions)
- availability of the product in the community.

# Bowel Management in Adults With Spinal Cord Injury

## What are laxatives?

Laxatives are medication taken by mouth used to help you have a bowel movement or to relieve constipation. Different types of laxatives act in different ways.

	How it works:	Generic names (some brand names):	Delay of action:
Lubricants and Stool Softeners	Grease the stool and make it slip through more easily. Provides moisture and prevents excessive dehydration.	Docusate solution (Dioctyl) Mineral oil	- 2 days
Bulk- forming agents	Generally considered the safest laxative. Absorb water in the intestine and make the stool softer. Adequate fluid intake must be maintained.	Isogel granules (Fybogel) Ispaghula husk (Regulan) Psyllium (Metamucil) Methylcellulose (Cellevac) Sterculia (Normacol)	1-4 days
Osmotic and saline	Indigestible carbohydrates or salts that increase stool bulk by pulling water into the colon for easier movement of stool.  Magnesium salts are very strong and are taken only for rapid bowel evacuation.	Lactitol, Lactulose (Duphalac) Polyethylene glycols (Movicol)  Magnesium salts (Epsom Salts)	1-2 days  Up to 4 hours
Oral Stimulants	Irritants of the colonic mucosa of the colon, which then stimulate the normal wave-like contractions of the bowel and propels stool.	Bisacodyl (Dulcolax tablets) Senna (Senokot, Manevac)	1-2 days

All laxatives can cause flatulence, bloating and abdominal cramps. Some can interfere with absorption of other medications. It is difficult to recommend which laxatives to take and how much of them you will need, but it is important that if you need to take these you start by taking a small amount and increase very gradually until effective bowel emptying occurs. Appropriate dosage should be established with the help of your healthcare worker. Getting the dose right of some laxatives can be difficult. Check with your healthcare team before use of any oral laxatives for more than three weeks.

# Bowel Management in Adults With Spinal Cord Injury

## What are suppositories?

Suppositories are solid form of medication (usually small and bullet-shaped) are inserted in the rectum to stimulate a bowel movement. They have to be inserted between the stool and the rectal wall to have optimum effect and when manual evacuation was incompletely successful.

There are three main kinds of suppository in use for spinal cord injured people:

- Glycerin suppositories (Glycerol)  
Essentially act as lubrication and very mild local irritant, but have no active ingredients which cause the rectum to empty.
- Bisacodyl (Dulcolax)  
Enters the blood stream via the lining of the rectum and induces a reflex bowel contraction by a local irritation of the rectal wall. Bisacodyl is stronger irritant than Glycerin. Bisacodyl slightly raises blood pressure, and sometimes causes headache or abdominal cramps.
- Carbon dioxide gas suppositories (Carbalax)  
Give off CO<sub>2</sub> when wet and this bulk can help stimulate a bowel movement, sometimes acting unexpectedly.

Suppositories act in 15 to 30 minutes. They can be taken on their own or in combination. A frequent practice is to use one Glycerin and one Bisacodyl suppository (insert the Bisacodyl one first). This is likely to be rather more effective than just Glycerin but not quite as strong as two Bisacodyl. Glycerin when effective alone is certainly cheaper for long-term use. Some people are able to stop using suppositories and then digital stimulation may be all that's needed.

## How do I give myself a suppository?

Remember to take great care when inserting suppositories:

Wash hands. Ensure that finger nails are trimmed, as they can puncture the glove and damage the rectum.

If you are using the toilet as most paraplegics and low lesion tetraplegics do, insert the suppository when on the toilet.

If you are having an evacuation whilst in bed, the suppository should be inserted while lying on the left side with knees raised a little towards the chest. Separate the knees with a pillow and ensure that adequate protection to the bedding is used.

Insert a gloved finger with plenty of lubrication (e.g. K-Y jelly) as this prevents damage to the delicate bowel lining.

Take off the wrapper and coat the suppository with a lubricant. Use plenty of water-based lubrication. Oil-based products, such as petroleum jelly or Vaseline, can prevent medications from working.

Remove any stool that is in the rectum. Suppository has to be inserted between the stool and the rectal wall to have optimum effect, when manual evacuation is incompletely successful. If you put the suppository in stool it will not work.

Insert suppository using lubrication, gently and correctly as high as you can and place it right next to the rectal wall.

## Bowel Management in Adults With Spinal Cord Injury

Wait about five to 15 minutes for the medication to work. If you pass gas or some stool, it's a sign that the stimulant is beginning to work.

Once the bowel has emptied as much as it can automatically, then it is advisable to check the rectum for any remaining faeces. Do this until the rectum is empty.

If after waiting 30 - 45 minutes you have had little or no results, you may need to do digital stimulation.

A suppository inserter may be the answer if you wish to be independent in your routine and manual dexterity is a problem.

### What is an enema?

An enema is a quantity of fluid infused into the rectum through a tube passed into the anus. Enemas are usually not recommended for long-term use. If you must use an enema, use a micro-enema such as Microlax. Their volume is much smaller and they are gentler on the bowel. If at all possible try to avoid using large volume enema. This does not mean they should never be used, but always be cautious.

There are several dangers associated with giving enemas to a paralysed person:

- Due to lack of sensation there is no feeling during insertion of the tube and there is a risk of pushing too hard on the wall of the rectum and perforating the bowel.
- If haemorrhoids are present, especially internal, these can be damaged and cause rectal bleeding.
- The anal sphincters may be overstretched and lose their elasticity.
- Large volume enemas, such as phosphate or arachis oil, can cause autonomic dysreflexia.
- If the fluid inserted is too hot, the bowel lining may be burnt.

Points to note if an enema is necessary:

- It is better to lie on your left lateral.
- Use a well lubricated rectal catheter.
- **NEVER PUSH THE CATHETER AGAINST RESISTANCE.**
- Fluid must be introduced slowly, use the gravity of the bag more than a syringe and not more than 500ml at a time.
- A rectal check should be performed frequently and if necessary manual evacuation done.

At the right time enemas are invaluable, but used inappropriately they can cause more problems than they solve.

Assisting devices are available to perform rectal washout or colonic irrigation. They consist in a closed system infusing liquid into the colon through a retention cuffed speculum inserted in the rectum. The liquid is either infused by gravity (rectal washout) or pulsed with a computerised system. So far these devices are still experimental.

# Bowel Management in Adults With Spinal Cord Injury

## What are bowel cleansing solutions?

Bowel cleansing solutions are usually used before bowel or abdominal surgery, before some X-rays examinations and before colonoscopy, to ensure the bowel is free of solid stool. They will wash out the entire colon. They involve drinking a certain amount of liquid, usually one to two litres, mixed with a powder containing salts to act as an osmotic laxative. They are not meant to be prescribed on a regular base as part of a bowel programme, but can sometimes be necessary. Fleet Phospha-soda, Picolax and Klean-Prep are occasionally prescribed under medical supervision for some patients. They act three hours after the first dose, but can take up to 24 hours to be efficient. Intestinal obstruction and faecal impaction are contra-indications to the use of these products.

## How can I perform my bowel care?

The goal of a reflexic bowel programme is soft, formed stool that can be passed easily with minimal rectal stimulation. The bowel care routine usually starts with digital stimulation or a stimulant medication. The goal of a flaccid bowel programme is firm, formed stool that can be removed manually with ease and doesn't pass accidentally between bowel care routines. Bowel care doesn't usually require chemical stimulants because the response would be very sluggish.

An example of a typical bowel care is given below:

- Whether you or an attendant performs the bowel care, it is important to wash hands thoroughly.
- Empty your bladder or move your urinary drainage equipment away from the anal area.
- If possible, sit up. Prepare for a bowel movement by getting on or ready for a transfer to a toilet or commode. If you're sitting up, gravity helps empty your rectum. When sitting, keep your feet on the floor or on a footstool or on the footrest of your commode chair, with your hips and knees flexed. If you need help with a transfer, position yourself before bowel care. If you don't sit up, lie on your left side.
- Check for stool by sliding a gloved well-lubricated finger into the rectum and remove any stool that would interfere with inserting a suppository or a mini-enema.
- Perform digital stimulation, insert a lubricated suppository or squirt a mini-enema high in your rectum (if needed, punch a hole in it with a pin as cutting it with a knife creates a sharp edge that can scrape your skin). To keep stool coming, repeat digital stimulation every five to ten minutes as needed, until all stool has passed.
- If you can, perform any assistive technique you were taught (bending, lifting, push-ups, Valsalva)
- To make sure the rectum is empty, do a final check with a lubricated gloved finger. You'll know that stool flow has stopped if no stool has come out after two digital stimulations at least ten minutes apart, if mucus is coming out without stool or if the rectum is completely closed around the stimulating finger.
- When you are confident all stool has passed, wash and dry the anal area.

## Bowel Management in Adults With Spinal Cord Injury

### **Are there special supplies available to help me manage my bowel care?**

Padded seats are manufactured and often available through your social services department - contact your community occupational therapist. If you transfer regularly to a toilet it is usually advisable to use some form of inflatable or padded seat, especially if you are liable to pressure sores.

Adapted toilets with grab and security rails aim to keep you safe and secure in the right position.

Perineal cleaner is available if you have difficulty wiping yourself.

Suppository inserters are available for those with limited hand function. A spring-loaded tip on suppository inserter prevents suppository from being expelled until fully inserted and ejects when pressure is applied to plunger.

Anal stimulators are usable by persons with a special grasp and are more sanitary. The probe is plastic, which reduces shock normally experienced from cold metal. A formed plastic handle fits in the palm and loops over the hand provide stimulation for independent bowel management.

Pads of all sorts and sizes of absorbents pads are available via your district nurse.

An anal plug has been developed to help control faecal incontinence and prevent loss of stool (Conveen, Coloplast Ltd., Denmark, <http://www.coloplast.co.uk>). It consists of a cup-shaped sponge foam plug, with a gauze string for removal. It is supplied wrapped in a clear water-soluble film to keep it compact for ease of insertion. The film dissolves on contact with the moist rectal mucosa, and the plug opens up. It comes in two sizes and is available on prescription.

Pulsed irrigation enhanced evacuation procedure is a recent method of clearing faecal impaction using pulses of warm water to re-hydrate stool and improve peristalsis (<http://www.piemed.com>). This technique has potential danger of autonomic dysreflexia and bowel perforation. It should be performed only by well-trained persons under careful supervision. Its value in a large group of patients has not yet been made.

Your health-care worker and the Spinal Injuries Association can help you to find proper equipment.

### **Why should I maintain my bowel care equipment?**

If you use a commode chair or padded toilet seat, avoid unpleasant surprises. It's a good idea to record the date you get your equipment as cushions and pads tend to wear out in about 18 months.

Inspect all your bathroom equipment every month.

Check screws and other hardware for loose or missing pieces.

Check for cracks or splits in vinyl covering. If cracks develop, ask a member of your rehabilitation team to inspect the equipment to consider replacement or repair.

# Bowel Management in Adults With Spinal Cord Injury

## **What to do with disposables?**

A disposal service for soiled pads and wipes is usually run by either the health authority or the local authority. This is usually in the form of a weekly collection. Bags are usually provided (with biohazard or clinical waste printed on them). The system is basically the same as a normal refuse system but all waste is incinerated. There is no single correct solution to disposal when you are away from home. Most people dispose of faeces down the toilet and then wrap wipes, gloves etc. tightly in plastic bags and throw them away in a dustbin.

## **What about smells?**

It is possible to buy bin liners and nappy sacks that are scented. These are small scented tie handle bags ideal for small packages. Just remember to take plenty of bags with you in which to throw your rubbish away.

## Problems and Complications Caused by the Bowel

### What should I do if my bowel programme is not working or if I have a delayed result with my bowel care?

People with SCI need to stick with a regular schedule and technique of bowel care. This will help you:

- Eliminate enough stool with each bowel care sessions at regular and predictable times
- Prevent or cut down bowel accidents
- Make bowel care go smoothly
- Allow you to finish your bowel care within a reasonable time
- Keep bowel-related health and other problems to a minimum.

Missed bowel cares can contribute to build-up of excessive stool that becomes dryer and more difficult to eliminate. This over stretches the colon, reducing the effectiveness of peristalsis and resulting in longer bowel cares with poorer results. You need to have a relationship with a healthcare team that understands SCI and will help you care for any problems you are experiencing.

You and your healthcare professional will work together to design a bowel programme that fits your needs. You will have to revise your bowel programme over time, but keeping a regular schedule for doing bowel care at a regular time is one of the best things you can do for your health and well-being after SCI.

If your bowel movements start more than 1 hour after you begin your bowel care, you must consider any one of the factors listed below. A combination of factors can also affect the success of a bowel programme. Changing one factor may produce results almost immediately, or it may take several days to see the results. Changing more than one factor at a time makes it difficult to determine the effects of individual factors, and may increase the time it takes to develop a stable bowel programme.

The following check list should help you find ways of improving your bowel management:

- **Timing**  
Do you do your bowel care in the morning or evening? At the same time every day? Are you doing your bowel care about 30 minutes after a warm drink or a meal? What is the interval between bowel routines - half a day, one day or two days? Your bowels will move more predictably if your bowel care is carried out on a regular, predictable schedule. Skipping your bowel care can result in constipation or accidents.
- **Privacy**  
Does someone else share your bathroom? Do you have enough time to complete your care in private? Are you able to relax and not to be rushed for your bowel care? The tenser you are, the more difficult it will be for you to empty your bowels. A hurried bowel care will increase the likelihood of an unplanned bowel movement later in the day.

## Bowel Management in Adults With Spinal Cord Injury

- **Positioning and comfort**

Where do you do your bowel care? On a commode chair, on a raised toilet seat, on the toilet, or in bed? It will work better if you are sitting up. Gravity helps move the stool down into the rectum. If you cannot sit up on a toilet or commode, lay on your left side.

- **Diet**

Are your stool well formed? Are they too hard or too soft? How much fibre or bulk do you eat? Eat at a regular time. Do not skip meals, especially breakfast. Some foods (white potatoes, white bread) can contribute to constipation, others (excess amounts of fruit, caffeine) may soften the stool and contribute to bowel accidents.

- **Fluids**

How much and what type of fluid do you drink? Hot weather increases the evaporation of body fluids, which can lead to dehydration, hard stool and constipation. Prune or orange juices stimulate the bowels.

- **Activity level / mobility**

How much exercise do you get? How much time do you spend out of bed? Do you stand in a frame?

- **Assistive techniques**

Do you massage your lower abdomen in a circular, clockwise motion from right to left? Have you tried bearing down or Valsalva? Are you doing digital stimulation? If you are already doing it, try to do it more often. Do you need special devices such as a suppository inserter or anal stimulator to assist you?

- **Medication**

Are you on some drugs that can cause constipation? Are you on drugs that can cause loose stools and contribute to bowel accidents? Are you using a strong rectal stimulant? If you are using a Glycerin suppository, try a Bisacodyl one or an enema, and if you are using a Bisacodyl suppository, try a mini-enema, or a polyethylene glycol-based Bisacodyl suppository. Have you tried taking a laxative the night before your bowel care?

An occasional use of a mild laxative, such as Milk of Magnesia, can be used to prevent constipation if other measures have not worked. Regular use of laxatives will cause your bowels to become dependent on them and eventually will require more and stronger laxatives to work at all.

- **Illness**

Are you suffering from any acute illness which may affect your bowels (flu, a cold, an infection)? If you're having problems sticking with your bowel programme, tell your healthcare professional. Together, you can help identify the problem by talking about your history of bowel care, performing a physical examination, and eventually having tests to explore why you're having problems. When changing your bowel programme change only one component at a time so that each change can be evaluated.

# Bowel Management in Adults With Spinal Cord Injury

## What kind of problems or complications should I be aware of?

If you're having bad reactions or a complication with your bowel programme, call and work with your healthcare professional right away. Complications include:

- Autonomic dysreflexia
- Blood in your stool or on your clothes. Change in the colour of your stool if it becomes lighter, red, or black.
- Delayed results from bowel care or inadequate stool results after two bowel care sessions.
- Difficulty in evacuation (constipation, impaction) and prolonged bowel care (lasting more than 1 hour).
- Chronic diarrhoea (more than three weeks) and unplanned evacuation (staining, leaking, soiling, more than once a week).
- Pressure sores.
- Haemorrhoids (piles).
- Too much gas or a bloated feeling.

You may be able to take care of most problems yourself. If you visit your healthcare professional to discuss changing your bowel programme, bring your bowel record with you. Be ready to discuss anything that might have changed in your programme. Even one change in what you usually eat or drink, for example, can affect how your programme works for you. Figuring out what's changed and switching back to your previous habits may correct the problem. If that doesn't work, or if there's a good reason for you not to return to your previous routines, your healthcare professional will help you modify your bowel programme.

## What is autonomic dysreflexia?

**Autonomic dysreflexia is a MEDICAL EMERGENCY. It is potentially a life-threatening condition that can develop suddenly. If not treated promptly and correctly, it may lead to seizures, stroke, and even death.**

Autonomic dysreflexia, also known as hyperreflexia or dysautonomia, is a state that is unique to patients after spinal cord injury at a T6 level and above. Patients with spinal cord injuries at T5 level and above are very susceptible, those with injuries at T6 to T10 may be susceptible, and those with T10 and below are usually not susceptible. The older the injury the less likely the person will experience autonomic dysreflexia.

Autonomic dysreflexia means an over-activity of the sympathetic nervous system. It is characterised by a rapid rise in the blood pressure. Anything that would have been painful, uncomfortable, or physically irritating before the injury may cause autonomic dysreflexia.

The most common cause seems to be the bladder. It could be due to a blockage in a urinary drainage device, a bladder infection (cystitis), an inadequate bladder emptying, bladder spasms, or possibly stones in the bladder. The second most common cause is a bowel that is full of stool or gas. Any stimulus to the rectum, such as digital stimulation or manual evacuation, can trigger to autonomic dysreflexia.

## Bowel Management in Adults With Spinal Cord Injury

The symptoms of autonomic dysreflexia are:

- Restless feeling and shortening of breath
- Pounding severe headache (caused by the elevation in blood pressure)
- Blurred vision and dizziness
- Goose pimples above the level of paralysis
- Profuse sweating particularly above the level of injury
- Flushing or blotching of the skin particularly above the level of injury
- Stuffiness of the nose (congestion)
- Slow pulse

The stimulus sends nerve impulses to the spinal cord, where they travel upward until they are blocked by the lesion at the level of injury. Since the impulses cannot reach the brain, a reflex is activated that increases activity of the sympathetic portion of autonomic nervous system. This results in spasms and a narrowing of the blood vessels, which causes a rise in the blood pressure. Nerve receptors in the heart and blood vessels detect this rise in blood pressure and send a message to the brain. The brain sends a message to the heart, causing the heartbeat to slow down and the blood vessels above the level of injury to dilate. However, the brain cannot send messages below the level of injury, due to the spinal cord lesion, and therefore the blood pressure cannot be regulated.

Treatment of autonomic dysreflexia must be initiated quickly to prevent complications.

Sit up if possible and/or do a pressure release immediately. You may transfer yourself to bed, but always keep your head elevated.

Check your urinary drainage system, since a full bladder is the most common cause.

Perform a gentle rectal check and empty your bowel, if needed. If you are performing a digital stimulation or a manual evacuation when the symptoms first appear, stop it. An anaesthetic gel (lignocaine) may be used for further digital stimulation.

Check for other causes: skin irritations, burns, scalds, wounds, pressure sores, condom catheter to tight, ingrown toenails, broken bones, appendicitis, or other complications.

An erection, sexual intercourse, period pains, pregnancy and labour pains.

**If you are unable to find the cause of autonomic dysreflexia or you fail to stop stimulus, you need to obtain emergency medical treatment.**

Since not all physicians are familiar with autonomic dysreflexia and its treatment, you should carry a card in your wallet that describes the condition and the treatment required.

Prevention of autonomic dysreflexia is very important.

Take special care of your indwelling catheter or catheterise yourself as often as necessary to prevent overfilling. Urinary tract infection or bladder stones may also cause autonomic dysreflexia.

Maintain a regular bowel programme. Keep on a regularly scheduled programme with adequate emptying. You may have to increase the frequency of your bowel programme if you are constipated.

Get in a comfortable position during bowel care.

Use anaesthetic ointment on the anal area five to ten minutes before digital stimulation.

## Bowel Management in Adults With Spinal Cord Injury

Medications to prevent increase in blood pressure and may also be given as a routine prior to the bowel care.

Nifedipine 5-10mg capsules may be pierced, liquid squirted under the tongue, chewed for two to three minutes and swallowed

OR

Glycerol Trinitrate 250microg may be given under the tongue

OR

Nitroglycerine Paste 1-2 inches applied on the skin above level of injury.

If needed repeat after 20 to 30 minutes. Blood pressure should be treated until cause is found and eliminated. Blood pressure should be monitored for at least 2 hours and stabilised under 150mmHg. Dysreflexia can happen at any time after your injury. You may have no problems for many years, then one day something may trigger an attack. It is essential that you are aware of this condition, because it can be dangerous and very frightening for both you and your family if you don't know what is happening and what to do. Any problem should be addressed and reassessment of your care may be indicated to prevent this potentially life-threatening condition.

### **Why is the relation between my bladder and my bowel important?**

Bowel care should be performed with an empty bladder. Great attention must be paid to hygiene. The greatest source of urinary tract infections is the bowel. Repeated urinary tract infection may be caused by a poor bowel programme and chronic constipation.

### **How can an illness affect my bowel?**

Fever can cause dehydration, hard stool and constipation. Flu, a cold or an intestinal infection may affect your bowel function and thus your programme. Even if your digestive system is not directly affected, your eating habits, fluid intake or mobility may change, which can alter your programme. If you are on antibiotics for an infection, unusual organisms can set up in the gut and cause diarrhoea. This can be found by examining a stool sample for these bacteria and the toxins they make. A course of a special kind of antibiotic will cure the problem.

### **What can cause bowel accidents and how to prevent them?**

Unplanned evacuations, uncontrolled bowel actions or bowel accident are recurrent uncontrolled or involuntary passage of stool. They are also called faecal incontinence, which is responsible for leakage, staining of underwear or loss of full motions. You should watch carefully for subtle messages from your body which might precede an accident or indicate that a bowel care is needed, such as, sweating, goose bumps, a sense of fullness in the stomach or a general feeling of restlessness.

## Bowel Management in Adults With Spinal Cord Injury

Possible cause	Solutions
Stools too soft oozing out:	<p>If you are taking stool softeners, cut down on quantity or frequency, or stop taking them altogether.</p> <p>Some food, beverages and drugs have the potential for producing soft motions, such as chewing gum, sweets, ethanol, antibiotics, laxatives and diuretics.</p> <p>Look at your diet to make sure you're eating enough fibre. Review all your medication with your healthcare professional.</p>
Eating more food than did before:	<p>Try doing your bowel care routine more often. For example, if your bowel care schedule is every other day, you may need to do it every day.</p>
Too many laxatives:	<p>If you are more active than you used to be or if you are eating more fibre, you may not need bowel medications anymore. Cut down on the laxatives you take each day until you have stopped having accidents.</p>
Bowel care sessions are not emptying my bowel well enough:	<p>If you notice a clear, sticky, sometimes odorous leakage from the rectum, try switching from a suppository to a mini-enema, or using only half of a suppository, or try eliminating them completely and begin your bowel care with digital stimulation only.</p> <p>Faecal impaction is a collection of hard stool plugging the rectum which may allow liquid to pass. This is called overflow diarrhoea. Avoid hard stools. Consider more frequent digital stimulation, using a stronger rectal stimulant or taking a laxative.</p>

If you can not find a cause or a solution, discuss the problem with your healthcare professional.

### What can cause diarrhoea and how to treat it?

Diarrhoea is the frequent passage of unformed or liquid stool, usually defined as three or more times a day, as a result of increased activity of the bowel.

Because the products of digestion pass through too quickly, the amount of water absorbed is reduced. Therefore, a large amount of material arrives in the colon, which exceeds its absorptive capacity, and a watery stool is the end result.

Causes of diarrhoea are:

- Taking too many laxatives.
- Eating unusual food, spicy or greasy foods.
- Drinks with caffeine (coffee, tea, cocoa, and soft drinks), orange juice, and alcoholic beverages.
- Severe constipation or impaction, causing overflow diarrhoea.
- Viral infection, flu, or intestinal infection.
- Some antibiotics impairing colonic flora.
- Nervousness and stress.

# Bowel Management in Adults With Spinal Cord Injury

Any of the following should be handled IMMEDIATELY with the help of your healthcare professional:

- Severe diarrhoea that lasts more than three days.
- Severe abdominal pain.
- Severe dehydration (dry mouth or lips, a lot less urine than usual, or dark urine with a strong smell).

## What you can do to treat diarrhoea?

- Stop taking any bowel medications. After the diarrhoea stops, you may start taking them again slowly.
- Stay away from foods that can irritate your bowel (such as spicy and greasy foods).
- Eat foods that help make your stools firm (such as whole grain breads, cereals, rice, or bananas). Change to a liquid only or very bland diet for 24 hours.
- Drink plenty of liquid, estimating what you are losing with the loose stools and replacing
- Make sure it is not a faecal impaction - your diarrhoea may be watery.
- If you are taking antibiotics, try eating natural bio-yoghurt every day. If you have diarrhoea, don't stop taking the antibiotics but do call your healthcare professional.

Extra care should be taken to prevent the skin becoming excoriated around the anus by excessive passing of liquid stools and frequent washing. Keep it clean, wash it with very mild soap and thoroughly dry, as often as necessary.

Occasionally when symptoms are mild, infrequent, and not due to impaction with overflow, treatment with loperamide (Imodium) or codeine phosphate can be given, but ONLY AFTER a medical condition has been excluded. These drugs can benefit people with soiling or passive leakage and those with urge incontinence. They reduce motility of the bowel and increase water absorption, making the stool more firm.

Loperamide can be fine tuned (Imodium syrup available) to achieve relief of symptoms, and can be used as required or continuously.

If diarrhoea persists for more than three days or if you have fever or blood in your stool, consult your GP.

## What should I do if I have a bowel accident?

If you have an accident act quickly. If you can, leave wherever you are and find a toilet.

There are important reasons for you to deal promptly with the situation:

Allowing your skin to be in contact with stool too long can cause devastating skin problems.

Blocking stool flow can cause autonomic dysreflexia, if bowel accident is caused by impaction.

## Bowel Management in Adults With Spinal Cord Injury

Putting others at ease and calmly doing what you have to do can help everyone get past the awkwardness. Accidents can be touchy situations, not just for you but for other people.

A good bowel programme can help you take charge of your bowel function and cut down on accidents. But accidents do happen, be prepared:

Keep a change of clothes, just in case, in a bag.

The bag might contain some toilet paper, moist wipes, gloves, a pad, clean underwear, loose-fitting pants, a waterproof pad, and a plastic bag for storage of soiled clothes.

Disposable undergarments might be an alternative when you know you will be far from a toilet for a long time.

Tight underwear or cycling shorts may aid to support the pelvic floor and help retain stool.

### What can cause constipation, and how to prevent it?

Constipation is a condition in which stool does not pass as often, as fast, as easily, or as completely as ideal. Less than normal amounts of stool for at least three days (and it is usually hard and dry); small or no bowel movements for 24 hours or three or more bowel care routines are sufficient to define constipation in SCI.

If you get constipated every few weeks you may need to reconsider your bowel programme.

The symptoms of constipation are:

- Lack of appetite, nausea, or bloating.
- Swollen or hard stomach
- Hard, loose, or watery stools (see overflow diarrhoea)
- Causes of constipation are:
- Not following a regular scheduled bowel programme.
- Not drinking enough fluids.
- Not eating a diet with fibre. Eating foods that can harden your stool, such as bananas and cheese.
- Not getting enough exercise or prolonged bed-rest.
- Side-effects of some medications.
- Not taking a stool softener

Solutions to avoid constipation are:

- Stay on a scheduled bowel programme and increase the frequency of your bowel care to daily.
- Drink at least eight or nine glasses of liquid a day (two to three litres). Provided fits bladder regime.
- Eat a balanced diet that includes plenty of foods high in fibre.
- Keep active.
- Take a stool softener, bulk former, or laxative at least 8 hours before your bowel care.

## Bowel Management in Adults With Spinal Cord Injury

Some people make the mistake of allowing themselves to become constipated, thinking that this will prevent bowel accidents and the need to attend to their bowels. In fact constipation can cause bowel accidents, as it can result in overflow diarrhoea.

Constipation may also impair bladder drainage and lead to urinary tract infection.

### What is faecal impaction, how to treat and prevent it?

Sometimes the stool gets stuck in an area of the colon. This is called an impaction and can actually cause runny diarrhoea, when the colon is irritated by the impaction and runny stool leaks around the blockage.

The causes of faecal impaction are the same as causes of constipation, usually happening over a longer period of time.

Symptoms of faecal impaction include:

- Loss of appetite, nausea and vomiting.
- Abdominal distension. You may be able to feel a hard mass in the colon.
- Overflow diarrhoea - small amounts of watery stools by-passing impacted stools.

Although impacted motions are usually low enough to be reached with a finger from the rectum and hooked, they can also occur higher in the mid (transverse) colon.

Sometimes diagnosis of faecal impaction requires an X-ray of the abdomen. It will show large amount of stool in the colon in a dilated bowel with an abnormal air pattern.

Treatment of faecal impaction includes:

- Carry out a rectal check and if you feel stool, remove it gently with a gloved and well-lubricated finger, using an anaesthetic cream or jelly.

Then

- If you do not feel stools or you are unable to completely evacuate them, take a laxative or take more of the one you've already taken, and wait eight hours and follow your regular bowel care. Increase the frequency of your bowel care to daily until normal volumes of stool results return.

If the above steps do not produce a bowel movement, call your healthcare professional.

Never wait more than three days knowing you are impacted.

If abdominal pain, vomiting and severe dehydration occur, admission to hospital may be necessary for medical review.

After medical assessment, nasogastric suction may be necessary to decompress the upper gastrointestinal tract.

Fragmentation and extraction using an anaesthetic gel may be necessary if stool can be reached.

Sodium enemas can be tried, but soap-suds enemas and suppositories are usually avoided.

A colonoscopically (use of a flexible tube inserted up your rectum) for directed bowel washout may be necessary if the impaction is in the first part of the colon.

Spinal anaesthesia is sometimes recommended if patient is prone to autonomic dysreflexia.

# Bowel Management in Adults With Spinal Cord Injury

Prevention of faecal impaction includes:

- Routine rectal evacuations at least every other day.
- Increased fibre intake.
- A stool softener or lactulose may be helpful.

Occasionally patients have repeated faecal impactions in spite of doing all the right things, and end up in the hospital it removed. If this happens frequently, surgical options may be considered.

Most of the time, however, an understanding physician working together with a skilled and experienced rehabilitation nurse can get the patient "on track" and stop these episodes without resorting to surgery.

## What is an intestinal obstruction?

An intestinal obstruction is a state when the bowel stops propelling the stool. This is due to a mechanical obstruction (called mechanical ileus) preventing the normal progression of stool along the gastrointestinal tract.

A state of intestinal paralysis (called paralytic ileus) can be precipitated by an injury, such as an acute trauma, surgery, pneumonia, a urinary tract infection or some medication.

Symptoms of ileus are similar:

- Nausea and abdominal distension, often in the absence of pain due to impaired sensation in SCI.
- Vomiting may be seen late in the clinical course.

Treatments of ileus include:

- Admission to the hospital for nasogastric suction until symptoms improve (passage of stool or gas, or resolution of abnormal gas patterns on abdominal X-rays) to achieve gastric decompression.
- General supportive measures.
- Treatment to resolve the underlying cause with sometimes infusion of medication.
- Surgery may be necessary to resolve the cause of the obstruction (tumour, adhesion, hernia).

## How to care for my skin, what is a pressure sore and how to prevent it?

A common problem is that skin can be stretched when transferring and this causes a split in the skin between the buttocks. Because of impaired sensation in this area, you will not feel it. You should take care not to damage the skin on your buttocks. If this happens and you are not careful it can very quickly become a serious pressure sore.

- To prevent pressure sore be especially careful to:
- Use seats carefully to avoid skin problems. If you can, consult an occupational therapist or contact the SIA for enquires about equipment.
- Your toilet seat should always be padded and at the correct height for easy transfer. Seams shouldn't touch your skin. Don't use a chair that has cracked or broken seat; it can hurt your skin.

## Bowel Management in Adults With Spinal Cord Injury

- Keep correct posture the whole time you're on a toilet or commode seat. Keep your weight evenly balanced over the seat. Be careful not to forcibly separate your buttocks or squeeze them together when you're sitting.
- Carry out pressure releases every 15 minutes to prevent pressure sores. That means lifting yourself off the seat and shifting your position to keep from putting pressure on the same skin area too long.
- A small amount of talcum powder brushed onto the seat may help to avoid sticking.
- It is also important to note that if your clothing has bulky seams this may cause increased pressure around the area. Nylon underwear should be avoided as it may lead to friction and sweating.
- Thorough washing and drying of your buttock area is essential. A gentle barrier cream can be used sparingly, although try not to use excessive amounts of creams or talcum powder as this will only "clog" the skin and cause more problems.
- Check your skin regularly (with a mirror or ask someone to look) and report problems to your healthcare professional.

### How to prevent falls?

To prevent falls, be especially careful when you're:

- Transferring to and from a toilet or commode chair.
- Doing forward or sideways bending.
- Bending to insert stimulant medication, doing digital stimulation or manual evacuation.
- Reaching for supplies.

Chest straps help people who have poor or no chest balance. Lap or waist straps help people who have spasms or tire easily.

Don't hesitate to ask your health-care professional to show you how to correctly use assistive devices.

### What are haemorrhoids, know as piles, and how to prevent them?

Haemorrhoids, otherwise known as piles, are enlargements of the veins which are in the external folds of skin around the anus (external haemorrhoids) and under the mucosa inside the anus (internal haemorrhoids).

Piles are very common in the general population and also in SCI. They are caused by constipation, straining, sitting far too long on the toilet and rough manual evacuation which will weaken the vein wall.

Piles may cause rectal bleeding that you can see as bright red blood on your stool, toilet paper, or glove. You may also see or feel them bulging outside the anal canal.

If you have active haemorrhoids (bleeding, swelling):

- Try to avoid or minimise digital stimulation and manual evacuation until the tissue heals.

## Bowel Management in Adults With Spinal Cord Injury

- Increase the amount of stool softeners or take them more often.
- Use more lubricant, a cream or a suppository made for haemorrhoids after each bowel movement.

You can help prevent haemorrhoids by:

- Preventing constipation. Keep your stools soft but formed. Try to increase the amount of fibre in your diet. If fibre in your food is not enough to keep your stool soft then consider taking a fibre supplement, such as Fybogel.
- Try not to strain.
- Supporting the pelvic floor with a gel or air cushion to distribute pressure over the entire surface prevents the enlargement of haemorrhoids and maintains closure of the anal sphincter.
- Injections, banding or surgical treatment is sometimes needed if the condition is severe.

### What are anal fissures and how to prevent them?

Anal fissures are small tears of the anal canal caused by splitting of the skin when evacuations are performed.

They cause pain when passing hard motion and bright bleeding. In a paralysed person spasms may become more severe and autonomic dysreflexia may even occur.

The main causes for an anal fissure are straining and constipation.

Treatment of an acute fissure relies on local medications. Various creams are applied to diminish the pain (anaesthetic gel like Lignocaine) and help the healing. Suppositories can be prescribed to soften the stool.

Surgery is frequently needed for chronic fissures which do not heal.

### What are the surgical options available to manage my bowel?

Surgery is a serious matter. Before deciding if it's the right choice for you, you need to consider all other medical therapies thoroughly. If they don't work, discuss surgical options with members of your rehabilitation team, your primary care practitioner, your carers, your occupational therapist, your family members, and other people who are important in your life. Different people can give you the information you need to make your decision carefully.

People consider surgery for many reasons, including some of the following:

- Being more independent in bowel care.
- Reducing the time and effort bowel care requires.
- Preventing bowel accidents or leaking of stool.
- Repetitive skin problems from a toilet or commode seat, and pressure ulcers.
- Persistent pelvic, rectal infections or bleeding haemorrhoids.
- Autonomic dysreflexia during bowel care.
- Safety issues (transferring accidents).

An important goal of any type of surgery is to improve the quality of life.

## Bowel Management in Adults With Spinal Cord Injury

Some people with long histories of SCI and limited ability to independently manage their own bowel care have reported improvements in quality of life after a stoma. This surgical procedure creates a permanent opening (called a stoma) between the bowel and the surface of the abdomen to which a disposable bag is attached to collect stool. This surgery is called colostomy or ileostomy, depending on where the opening is made. It enables many patients to manage their bowels in less time than a bowel routine.

The choice between a colostomy and an ileostomy will depend upon the results of studies examining how your stool moves through your bowel and consultations with a colorectal surgeon.

The site on your abdomen for the stoma placement should maximise both your independence and your body image. Things that will be considered in choosing where on your abdomen the opening should be are your body constitution, your disability and your preference (where you want it to be and why, how your clothes will fit and how you'll feel about the way you look, how easy it is to reach and care for).

This type of surgery is intended to produce permanent changes in how the colon empties. It can be reversed, but only in some circumstances. If you aren't happy with the results, you may be able to go back to your previous bowel care routine. Even though you can change your mind, reversing the procedure requires more surgery. That's why you should ask as many questions as you need, to feel comfortable with your choice before anything is done. Evaluation of options should include contact with a spinal cord unit and, if possible, discussion of the outcome with someone who has had the procedure.

Two recently described surgical techniques merit a mention:

### **Antegrade Continence Enema procedure (Malone)**

A technique in which the appendix or a small segment of the small bowel is formed into a tube from the caecum, to the surface of the skin on the abdomen to form a stoma. This tube or tunnel allows a catheter to be passed through the stoma into the large bowel. Thereby, fluid can be passed and washes out (antegrade enema) to empty the content of the colon. Enemas can be performed daily or on alternate days, using a mixture of phosphate enema and saline. A Malone procedure can be performed with concomitant urinary diversion. Stoma stenosis is a frequently encountered problem that may require dilation or surgical revision.

### **Anterior sacral root stimulator implants**

These can improve bowel function in highly selected patients with spinal cord trauma by using electrical impulses. Stimulators can be programmed to achieve complete unassisted defaecation. This is a highly skilled surgery, not available everywhere.

For all these surgical options, patient selection is the key factor and a careful pre-operative assessment is mandatory. The surgeon or a team member will make sure you understand what the surgery can and cannot achieve. They will discuss specific screening studies that provide information for decision making, explain the risks you'll face during and after surgery and will predict how well the procedure will work for you.

## More Information on Bowel Management

### Who can I contact for more information, advice or help?

Many people can help you establish an effective and reliable bowel programme. Your GP, district nurse, spinal unit community liaison team and healthcare worker will do their best to ensure that you gain the confidence and freedom needed to live an active life.

### Are there some scientific evidences that I can read?

Contact the Spinal Injuries Association if you are interested in a reading list.

A new website is available giving bowel control information and practical advice:

[www.bowelcontrol.org.uk](http://www.bowelcontrol.org.uk)

The site has details on:

- Normal bowel function
- How common are problems?
- Causes of loss of control
- Getting help
- What tests might I need?
- Self help, Treatment
- Bowel conditions
- Products
- Further reading and Useful information and links.

For further details contact: Christine Norton, Nurse Consultant (Bowel Control), St Mark's Hospital, Watford Road, Harrow, Middlesex HA1 3UJ.

# Bowel Management in Adults With Spinal Cord Injury

## Appendix 1 - Sample Bowel Diary

Record each time you open your bowel.

Date	Aperients	Start Time	Finish Time	Bowel result	Comments
	(time, dose): bulking agent, rectal stimulant, laxative			(Circle appropriate answer)	(Assistive technique, diet, fluid intake, current medications taken)
				Planned Accidental  <b>Result:</b> Very good Adequate Unsatisfactory  <b>Amount:</b> Small Medium Large  <b>Consistency:</b> Rock-hard Normal Loose Watery	

# Bowel Management in Adults With Spinal Cord Injury

## Appendix 2 - Sample Food Record

(Description and quantity for each meal category)

	Breakfast	Lunch	Dinner	Snacks	Result of bowel care?
Monday					
Starch, cereals, bread, pasta					
Vegetables, fruit					
Milk, dairy					
Meat, fish, seafood					
Tuesday					

This kind of record will help you and your carer find a proper diet as part of your bowel programme.

# Bowel Management in Adults With Spinal Cord Injury

## Appendix 3 - Some Definitions

Anal sphincter	A circular band of muscle that keeps the outlet of the rectum closed, like a drawstring on a purse.
Anus	The outlet of the rectum lying between the fold of the buttocks
Areflexic bowel	A pattern of bowel dysfunction caused by injury to the nerves that travel from the spinal cord to the bowel. No reflex bowel processes are possible. Also called flaccid bowel or Lower Motor-Neuron (LMN) bowel. A person with this condition can't feel the need to have a bowel movement, the rectum doesn't empty by an automatic reflex action, and the anal sphincter doesn't close as tightly as it did to keep stool in.
Assistive device	Any device that increases the independence of a person with a disability. An example is a digital stimulator, which helps a person with limited hand function to be more independent with bowel care. Also called adaptive device.
Assistive technique	Any movement that increases the speed of bowel care or the amount of stool produced. Includes abdominal massage, forward and sideways bending, push-ups, digital rectal stimulation and manual evacuation.
Autonomic dysreflexia	An abnormal response to a problem in the body below a spinal cord injury that causes high blood pressure. It's most likely to happen if the SCI is at or above the 6th thoracic vertebra (T6).
Bowel or Intestine	The intestine is a tube-like structure that propels and store food and waste. It extends from the stomach to the rectum, also called the gut or the gastrointestinal tract.
Bowel accident	Unplanned or uncontrolled bowel action, loss of stool or leakage causing staining of underwear or pad. Also called faecal incontinence.
Bowel movement	Passage of the stool out of the body. See defaecation.
Bowel programme	A total treatment plan designed to empty the bowels at a regular and predictable time through bowel care, to prevent or cut down on bowel accidents, and to keep bowel-related health and other problems to a minimum. The components of a bowel programme are diet, fluid intake, activity level, medications, and a consistent routine for bowel care.
Bowel care	The process of triggering and assisting a bowel movement. Bowel care is part of a bowel programme. Bowel care can include any or all of the following steps: getting ready, positioning, checking for stool, inserting stimulant medications, performing digital stimulation or manual evacuation, and cleaning up.
Colon	The large intestine.
Colostomy	A surgical opening from the intestine through the abdominal wall that allows stool to be pushed out into an attached, disposable bag. This opening is built by disconnecting the colon from the rectum and connecting it to the abdominal wall.
Constipation	A condition in which stools are hard, do not pass as often (less than three times per week), as completely, or as easily as they could.

## Bowel Management in Adults With Spinal Cord Injury

Diarrhoea	A condition associated with loose, watery or frequent bowel movements (usually defined as more than three times a day).
Defaecation	Elimination of faecal matter through the anus, also called bowel movement.
Digestive system	Includes the gastrointestinal tract and all organs necessary to digest food, mainly the liver and the pancreas.
Digital stimulation	The process of inserting a gloved, well-lubricated finger into the rectum and moving the finger in a circular funnel-shaped pattern, keeping contact with the rectal wall. This stimulates bowel action and helps trigger peristalsis in a reflexic bowel.
Faecal incontinence	Recurrent uncontrolled or involuntary passage of stool or flatus. Also called a bowel accident.
Ileostomy	A surgical opening from the ileum (the end of the small intestine) through the abdominal wall that allows liquid stool to be pushed into an attached, disposable bag. This opening is built by disconnecting the ileum from the colon and connecting it to the abdominal wall.
Impaction	A collection of hard stool plugging usually the rectum and obstructing stool evacuation.
Laxatives	Medications and substances that stimulate bowel movements.
Manual evacuation	Use of one or two gloved and lubricated fingers to break up or hook stool and remove it from the rectum. This is the standard way to empty the rectum for people with flaccid bowel. People with reflexic bowel also use it sometimes to remove stool before they insert rectal stimulant medication.
Mechanical stimulation	Use of the fingers or other mechanical device (such as a digital stimulator) to remove stool from the rectum.
Mini-enema	Medication in a small amount of liquid (usually 1 ounce or less) that's injected into the rectum to stimulate a bowel movement. Also called a liquid suppository.
Neurogenic bowel	A medical condition caused by an injury to the spinal cord that damages the nervous systems control of the colon and interferes with the body's natural process for storing and eliminating solid wastes. There are two patterns of neurogenic bowel: reflexic and flaccid.
Peristalsis	A wave-like action of the muscular bowel wall that moves food through the bowel into the rectum.
Positioning	Putting a person with SCI into a posture for skin protection, comfort, and efficiency of bowel care. A cushioned commode chair or padded toilet seat helps empty the lower bowel by taking advantage of the effects of gravity. For people who cannot sit up, lying on the left side takes advantage of gravity in moving waste through the transverse colon.
Rectal stimulation	Treatment of the rectum to stimulate elimination of stool. There are two types of rectal stimulation: digital stimulation is a mechanical technique, and use of stimulant medications in a suppository or mini-enema form is a chemical technique.
Rectum	The last and lowest segment of the bowel that ends just inside the anus.

## Bowel Management in Adults With Spinal Cord Injury

Reflex	An automatic response requiring no conscious thought, coordinated by connections between nerves. An example is an increase in peristalsis in the colon caused by digital rectal stimulation.
Reflexic bowel or spastic bowel	A pattern of neurogenic bowel dysfunction that affects storage and elimination of stool that results from an injury to the spinal cord in the cervical (neck) or thoracic (chest) area. Also called spastic bowel and Upper Motor-Neuron (UMN) bowel. A person with this condition may or may not be able to feel the need to have a bowel movement. In either case, the rectum will still empty by an automatic reflex action, the same as it did before the SCI.
Sphincter	The muscles surrounding and closing the anus.
Stimulant medications	Substances given rectally as a suppository or mini-enema.
Stool	Waste products, also called faecal material, passing through the bowel
Stoma	A small opening on the abdomen created by surgery for removal of stool.
Suppository	A solid form of medication (usually small and bullet-shaped) that is inserted in the rectum to stimulate a bowel movement.
Valsalva manoeuvre	Breathing in and trying to push air out while at the same time blocking the air in the throat to increase the pressure in the abdomen. For people with flaccid bowel, gentle Valsalva manoeuvres can help push stool out.

## Bowel Management in Adults With Spinal Cord Injury

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Edited: July 2009