

A GUIDE TO LIVING WITH A COLOSTOMY

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DISCLAIMER

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HOW TO CITE

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INTRODUCTION

This guide has been created for adults to provide helpful information about learning to live with a colostomy. Many people have colostomy surgery every year. Some worry about how they are going to live with a colostomy, also called an ostomy. Most can resume their previous lifestyle following surgery.

There are a variety of resources available to assist you, your family, and your support network as you prepare for and recover from surgery. A nurse specialized in wound, ostomy, and continence (NSWOC) has specialized knowledge and expertise to assist people having ostomy surgery. The Ostomy Canada Society provides support, education, collaboration, and advocacy for those living with an ostomy. Volunteers who are living with a colostomy may be available to visit you in the hospital or when you return home to guide you as you learn to live with your colostomy. A local support group may be near you; see the resources list for contact information.

There is space for notes on page $\underline{24}$ for your questions or things you would like to discuss further. Text shown in blue on first use are explained in the glossary. Text in red are links you can click for more information.

The Digestive Tract

The digestive tract consists of the mouth, esophagus, stomach, bowel composed of the small intestine, and large intestine (colon), rectum, and anus (Figure 1). The process of digestion takes place over several hours and begins in the mouth where enzymes in the saliva start breaking down food as it is chewed. Then the food passes through the esophagus into the stomach.

In the stomach, food is churned and mixed with gastric juices. The food slowly passes from the stomach into the small intestine.

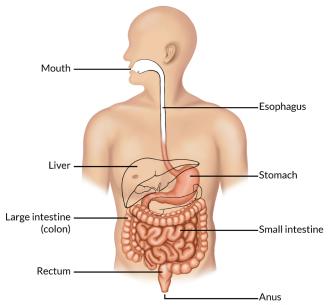
The small intestine consists of three sections:

duodenum, jejunum and ileum and is approximately 6 metres (18 feet) in length. Digestion and absorption of nutrients from ingested food takes place in the small intestine; this process is almost complete before waste products pass into the large intestine (colon).

The large intestine (colon) is approximately 2 metres (6 feet) long and ends in the rectum. The colon absorbs water and salts; and the rectum stores waste products as stool or feces.

When the stool moves into the rectum, reflexes occur, and a person receives a signal for the urge to have a bowel movement. The time required for the digestion of food from eating to the passing of stool is referred to as the transit time.

Figure 1 Anatomy of the digestive tract



What is a Colostomy?

Surgery to create a colostomy diverts stool from its normal route which may be necessary for various medical conditions. A colostomy may be temporary or permanent, depending upon the reason for surgery and personal choice.

A temporary colostomy may be needed to reroute the stool away from the lower part of
the bowel to allow for it to heal. A temporary
colostomy means it may be possible for it to be
reversed/reconnected so you can have bowel
movements through your anus as you did
previously before your colostomy surgery. Your
surgeon will discuss if reversal is an appropriate
option for you. A permanent colostomy means
you will always have the colostomy and reversal
is not an option.

The type of stool from a colostomy varies depending on the location where the colostomy is located in the colon. A colostomy created toward the right (ascending) side of the colon will have looser, more frequent stools. A colostomy created toward the left (descending) side of the colon will usually have more formed, less frequent stools.

What is a Stoma?

The visible part of a colostomy is called a stoma. It is located on the skin of your abdomen. Its location varies depending on where in the colon the colostomy is created. To create the stoma, the surgeon brings out a section of the colon to the outside of your abdomen, turns it back on itself like the cuff of a sleeve and sews it to the skin. As a result, the visible part or stoma on the abdomen is the inner lining of the colon.

The stoma is normally soft, warm, moist and pinkish-red in colour like the tissues inside the mouth. The stoma is swollen and larger after surgery. As healing occurs, the stoma usually shrinks in size and shape over the first six to eight weeks. The size of a stoma varies depending on the individual and the nature of the surgery. The stoma may protrude slightly from the abdomen

which makes it easier to see where to attach the pouching system (appliance) to the abdominal skin.

When wiped or cleansed, the stoma may bleed slightly. This is normal due to the many tiny blood vessels located close to the surface. A small amount of bleeding is not a concern and should stop with gentle pressure.

You may also see stitches around the stoma, which attaches your stoma to your skin. These stitches should be dissolvable and may be visible for 6-12 weeks after surgery. Stitches are not to be removed. Do not be alarmed if the stitches come away when cleansing the area.

There is no feeling in the stoma. It doesn't hurt when touched or when stool or gas pass through the opening of the stoma. You cannot control the movement of stool and gas through the stoma therefore a pouching system may be worn to contain the stool.

TYPES OF COLOSTOMY STOMAS

There are many different types of colostomy stomas that can be made by your surgeon.

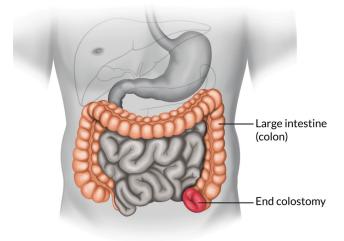
End Colostomy

An end colostomy (Figure 2) is often located on the lower left side of the abdomen in the sigmoid colon. If the anus, rectum have been removed, this type of colostomy is permanent (Figure 3).

Figure 2 An end colostomy stoma



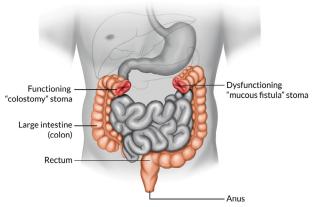
Figure 3 An end colostomy with rectum and anus removed



End Colostomy with a Mucous Fistula

Two stomas may be created if the anus, rectum, and a portion of the lower colon have not been removed. One stoma leads to the functioning part of the colon through which stool and gas pass. The second stoma opens into the nonfunctioning portion of the colon, rectum, and anus. This stoma is known as a mucous fistula (Figure 4). The second stoma is usually small, flat, pinkish-red in colour, moist and produces mucus. When the rectum remains in place, it is normal to sometimes have the urge to have a bowel movement, but only mucus and possibly some old stool, if present, will be passed.

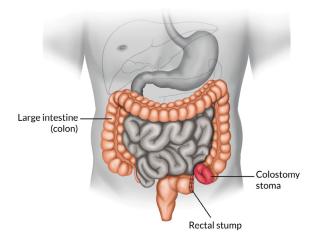
Figure 4 An end colostomy with mucous fistula



End Colostomy with a Rectal Stump

Sometimes the surgeon may divide the bowel bringing one end out to the abdomen as a functioning stoma. The other non-functioning part of the colon and the upper end of the rectum may be stapled or sewed closed. This forms what is called a rectal stump which remains inside the abdomen. The rectum and the anus remain open (Figure 5). Because the rectum and anus have not been removed, the urge to have a bowel movement may occur. Mucus and some old stool may be passed from the anus. If the colostomy is temporary, once healing from the first surgery is complete, a second surgery is required to reconnect the two ends of the bowel to restore normal bowel function.

Figure 5 An end colostomy with a rectal stump



Loop Colostomy

A loop colostomy may be created to divert stool from a diseased, injured or healing part of the colon (Figure 6). The surgeon does not divide the colon but brings out a loop of the colon onto the skin surface creating a loop colostomy. A stoma rod or catheter may be used temporarily to support the stoma on the abdomen (Figure 7). The stoma site may be located above or below the waistline depending on the location in the bowel. If the bowel was blocked, the stoma may be very large immediately after surgery but usually shrinks as healing occurs. A loop colostomy may be temporary or permanent and

has two openings. One opening leads to the functioning part of the colon through which stool and gas pass. The second opening leads to the nonfunctioning part of the colon which will continue to produce mucus. Mucus and old stool, if present, may be passed from the rectum through the anus. It is normal to feel the urge to have a bowel movement. It is recommended that you allow the mucus to pass without forceful pushing

Figure 6 A loop colostomy stoma

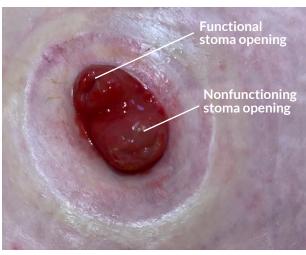
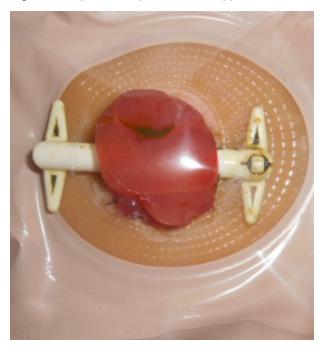


Figure 7 Loop colostomy with stoma support rod



POUCHING SYSTEMS

A pouching system or an appliance is attached to the skin on the abdomen over the stoma to contain stool, odour, and gas. It also protects the skin around the stoma from the stool. A variety of colostomy pouching systems are available to meet individual needs. An NSWOC or specialized nurse will show you examples of pouching systems such as those in (Figures 8 & 9). An open-ended pouch can be emptied through an opening at the bottom of the pouch. A closedended pouch is sealed at the bottom and may be thrown away after use. A pouch liner may be placed inside your pouch and thrown away and replaced after each bowel movement instead of the pouch. An NSWOC can assist you to select a pouching system which best suits your skin, abdominal shape, physical abilities, lifestyle, and personal preferences. Sometimes more than one pouching system is tried before a person decides which option is most comfortable and best meets their needs.

Pouching systems are:

- odour resistant;
- lightweight;
- low profile-may not be noticeable through clothing;
- clear or opaque;
- drainable with various closure devices or

- closed systems; and
- may contain a filter to release gas.

They may be:

- one-piece (pouch and skin barrier permanently attached), or a two-piece system consisting of a skin barrier and detachable pouch; and
- skin barriers may be flat, convex or concave, moldable, presized, or cut-to-fit to the size and shape of the stoma.

Figure 8 Examples of pouching systems (a) one-piece drainable pouch; (b) two-piece drainable pouch; (c) skin barrier flange two-piece system; (d) two-piece closed end pouch

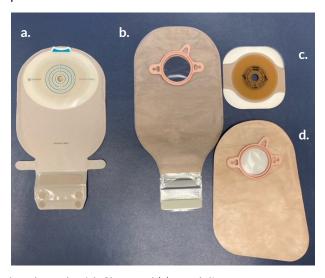


Figure 9 Pouch options (a) drainable pouch with filter; (b) closed pouch with filter; and (c) pouch liner







FUNDING

Some provinces/territories have funding grants to help with the cost of ostomy pouching systems. Specific information can be obtained from your NSWOC, extended medical health benefits, medical/surgical supplier, pharmacist, social services, Ostomy Canada Society, or provincial/territory government websites. The Disability Tax Credit can help people living with an ostomy to reduce the income tax they, their partner or dependant may have to pay.

PREOPERATIVE PREPARATION

Preoperative teaching about your colostomy may be available during your preadmission clinic assessment. You may find it helpful to ask a relative or friend to go with you to ask questions or take notes.

You may meet a variety of health care providers including doctors, nurses, a registered dietitian, anesthetist, surgeon and an NSWOC. These professionals will discuss different aspects of your operation and answer your questions. Abdominal muscle strengthening exercises shown on page 16 may also be recommended before and after surgery to help strengthen your abdominal muscles. Discuss any questions and concerns with your surgeon.

Your NSWOC or surgeon will examine your abdomen before surgery to select the best location for your stoma. The stoma site location is decided with your input as well as findings from the assessment by an NSWOC or surgeon. The site chosen must be easy for you to see to take care of your stoma and also free of any skin creases so your appliance will stick better to your skin. Your lifestyle, clothing, and specific physical needs are also important considerations. Every effort is made to place the stoma in the best possible location. Sites vary depending on the circumstances and anatomy of each person. Sometimes the surgeon may not be able to use the site marked before surgery and may need to

change the location of your stoma.

If your surgery was an emergency, your preoperative experience may be different than described. Be assured that your NSWOC will support you after surgery with your learning needs.

POSTOPERATIVE EXPECTATIONS

After surgery members of the health care team will work together to manage your physical, educational, and emotional needs.

If your rectum and anus were removed, you will have an incision where the anus was located (perineal incision). If the rectum has not been removed, it is normal to have the urge to have a bowel movement. Mucus and or old stool, if present, may be passed gently from the anus without pushing.

A transparent pouching system is applied over the stoma in the operating room to enable monitoring of your stoma. Nurses routinely check the condition of your incision(s), your stoma, and ensure that your pouching system is intact. A pillow may be placed over your abdomen to support your abdominal muscles and incision when coughing and sneezing. If your rectum and anus were removed your nurses and health care team may teach you temporary ways of sitting and lying to help reduce pressure on your perineal incision as it heals. You may sit on a regular pillow for comfort but do not sit on a donut shaped pillow or an inflatable ring.

Your colostomy may not function for a few days after your surgery. At first you may have abdominal cramps and then gas will start passing through the stoma involuntarily. Passing gas is a sign your bowel is beginning to work. In the beginning you may have a large amount of noisy gas, which may be followed by loose stool. As you return to your usual diet the gas will probably become less noisy and the stool

should become less frequent and more formed.

GOING HOME

As you recover from surgery, you will be taught to care for your colostomy. It is important you become as independent as possible with your colostomy care before going home.

Before discharge from the hospital, you may have supplies ordered for you. Your NSWOC will also provide you with a detailed list of all the supplies you require and the name(s) of a pharmacy or medical/surgical (ostomy) supply store where you can buy your supplies. It is recommended that you have at least two or three extra pouching systems with you when you leave the hospital.

Your surgeon will advise you when a follow up visit is required after you are discharged from hospital. A follow up visit with an NSWOC is also encouraged, to reassess your stoma size and shape, your skin and appliance to ensure a good fit. The NSWOC and surgeon can also assist you with any further questions or issues that you may have. Ask your NSWOC or surgeon if an NSWOC is available in your community.

Notes. Bring all the supplies you require to replace your pouching system during your visits with the surgeon and an NSWOC. Contact Nurses Specialized in Wound, Ostomy and Continence Canada (NSWOCC) to obtain contact information about an NSWOC in your area (see the resource list).

LIVING WITH A COLOSTOMY

Initially your pouching system requires replacement as your stoma changes size and shape. After this adjustment period the length of time between the replacement of your pouching system depends on individual needs and the type of pouching system. Most people will change their complete pouching system once or twice a week on a pre-set schedule to avoid possible leakage and skin irritation. It

is advisable to do this as part of your regular personal care. However, your pouching system needs to be replaced immediately if leakage occurs to prevent skin irritation from stool on the skin.

The stoma will gradually shrink and change shape for approximately six to eight weeks following surgery. During this time, it is recommended that the stoma be measured when you change your complete pouching system. The opening in the skin barrier should be no bigger than 1-2 mm than the size and shape of the stoma. There should only be 1-2 mm of skin exposed for a good fit to protect your skin from stool and skin irritation.

With time and practice as you recover from surgery, you will develop confidence and care will become routine. Support and understanding from family and friends are very helpful during your recovery. If you wish, a family member or significant other may be included in your teaching sessions so they can become familiar with your care. Never hesitate to ask questions. After discharge, nursing support and NSWOC services may be available in your community to assist you to become more confident and independent with your colostomy care.

ONGOING CONSIDERATIONS FOR DAILY LIVING

It is normal to have concerns about your altered body appearance and method of passing stool. It takes time to adjust to the changes in your body. Each new experience you master helps you feel more comfortable and confident. It may be helpful to tell those closest to you how you feel. However, not everyone needs to know you have an ostomy. It is your decision about whom you wish to tell. Your NSWOC, surgeon, or family doctor are available to help you adjust to living with a colostomy. Talking with an Ostomy Canada Society volunteer who has experienced similar surgery may also be helpful. Ask your NSWOC or doctor if a local chapter and visitor

are available in your area.

Skin Care and Steps to Change your Pouching System

Care of the skin around the stoma is necessary. The skin around the stoma should look like the skin on the rest of your abdomen and not have any redness or irritation.

- Check your skin and stoma each time you change your complete pouching system.
- Plan to change your pouching system when your colostomy is likely to be less active often in the morning prior to eating or drinking.
- Cleanse the skin around the stoma with warm water and a soft cloth.
- Soap is not required.
- If you wish to use soap, choose a mild unscented, non-oil-based soap.
- Rinse your skin well with warm water to remove soap residue.
- Pat the skin dry.
- Avoid the use of baby wipes as they may contain ingredients such as moisturizers that may interfere with your pouching system sticking.
- Adhesive residue that remains on the skin can gently be removed using an ostomy adhesive remover.
- Rinse the skin well with warm water to ensure complete removal of the adhesive remover from your skin. Residue from some removers may interfere with your pouching system sticking.
- After the skin is cleansed and dried, apply your new pouching system as directed by your NSWOC.

Generally, it is not necessary to cleanse the stoma. However, if you do, a small amount of bleeding may occur, which is normal. Cleanse the stoma with warm water; it is not necessary to dry the stoma.

Avoid using creams and lotions on the skin around your stoma. They may prevent your pouching system from sticking and may irritate

the skin under the pouching system. Also, avoid the use of ostomy powder around the stoma unless directed by an NSWOC or your doctor. Too much powder or misuse may interfere with the pouching system sticking.

Hair on the skin around the stoma can be removed by trimming with scissors or electric clippers. Never use commercial hair removal products. If a razor is used it must only be used for your parastomal skin and not on other areas of your body. Use of a razor may also risk cutting the skin or stoma and cause skin irritation for some people. Discuss concerns or questions with an NSWOC or your doctor.

Causes of skin irritation include:

- damage or injury from aggressive removal of the pouching system from the skin;
- incorrect fit of the pouching system (i.e., skin barrier opening too large);
- leakage of colostomy drainage onto the skin;
- sensitivity to products; or
- excessive moisture trapped against the skin under the pouching system.

If you experience skin irritation which does not resolve quickly, contact an NSWOC or your doctor for help. Remember the skin under your pouching system should resemble the skin on the rest of your abdomen.

If you have a perineal incision, keep this area clean and dry to promote healing.

Medications

Medications are absorbed in different areas of the digestive tract. It is unlikely that your colostomy will alter the effectiveness of your medications. Review all your medications, including non-prescription medicines, with your family doctor or pharmacist. Certain medications, for example vitamins or antibiotics, can affect the odour, colour, and consistency of stool. Antibiotics may alter the balance of the normal bacteria on your skin, causing irritation under the pouching

system. If you take antibiotics and skin irritation occurs, contact an NSWOC, or your doctor.

Remind your doctor and tell your pharmacist about your colostomy before you begin a new medication or supplement and discuss any concerns with them.

Always carry a list of all the medications you take. You can get a medication record from your pharmacy.

DIETARY RECOMMENDATIONS

The first days to weeks after any bowel surgery are a period of adjustment. There may be a gradual progression in diet from clear fluids (e.g., juice, broth, Jell-O), to full fluids (e.g., milk, ice cream, cream soup), to a light diet (solid food that is low in spices and fibre), to a regular healthy diet based on Canada's Food Guide for Healthy Eating.

It is beneficial to work with your registered dietitian as you recover to ensure you are getting enough nutrition to support healing. You may need supplements during this time to meet your needs, which can include meal replacement beverages and protein powder.

Over time most people with a colostomy gradually resume a regular healthy diet. There is no need for a special diet unless you have restrictions for another medical condition.

Everyone differs in the foods they tolerate. Your diet can also accommodate any cultural, ethnic or lifestyle choices you choose such as a vegan, vegetarian, or keto. Foods that caused problems or gas before surgery may continue to do so after your surgery, such as dairy foods if you are lactose intolerant. As you transition from a low fibre diet to a more regular diet, experiment with a variety of foods. Try one new food at a time, and keep a food journal so you can identify the foods that may cause difficulty. Give foods a second and third chance before

eliminating them from your diet. You may find in a few weeks you are able to tolerate foods that bothered you at first.

Remember:

- eat foods from each food group;
- eat meals and snacks at regular times;
- skipping meals may increase gas production;
- drink plenty of fluids;
- eat slowly; and
- chew your food well.

Please discuss with a registered dietitian, an NSWOC or family physician if you have any concerns regarding maintaining your chosen sources of nutrition with your new colostomy. As the diet progresses so does the transition of the stool from liquid to pasty to soft and formed. This may take several weeks. Some of the most common complaints related to a colostomy are constipation and odour. Because more of the colon is intact with a colostomy, more fluids and electrolytes are reabsorbed resulting in a formed stool.

The following are suggestions to assist you in dealing with some difficulties commonly experienced by people with a colostomy. If any of these conditions persist, contact your NSWOC, registered dietitian, or doctor.

Constipation

Causes of constipation are varied and may include decreased activity, low fibre diet, inadequate fluid intake, and some medications such as those for pain.

Suggestions that may help to prevent or relieve constipation are:

- increase your daily fluid intake to at least six to eight large 250 ml (8 oz) glasses of water, juice, warm beverages, or soups;
- increase your fibre intake to include more fresh, raw or cooked fruits or vegetables, whole grain breads and cereals;
- bran products;

- oatmeal:
- stewed prunes or one to two small (4-6 oz) glasses of prune juice daily;
- raisins, nuts and seeds; and
- increase your level of activity.

If you are not able to relieve constipation through diet and exercise, speak to a registered dietitian, your doctor, pharmacist or NSWOC about the use of a mild laxative or stool softeners.

Odour

Foods that may increase odour include:

- fish:
- eggs;
- onions;
- garlic;
- cheese:
- legumes (beans, peas);
- smoked foods;
- alcohol;
- asparagus;
- fried or fatty foods;
- heavily spiced foods; and
- vegetables of the cabbage family, including turnips.

If you have problems with food-related odours, you may wish to limit your intake of these foods or eat them at times when you are less likely to be concerned about odour. Foods that can be included in your diet to help control odour are parsley, yogurt, cranberry juice, and buttermilk. Pouch deodorants are also available. Odour can also result if your pouching system isn't sticking well to your skin, if there are any leaks and if the drainage spout and closure device are not clean. If odour is a concern, consult an NSWOC or a registered dietitian for suggestions for odour control.

Excessive Gas

Foods that may promote gas formation include:

- dried peas and beans;
- eggs;
- melons;
- cucumbers;

- peppers and spices;
- beer and carbonated beverages;
- onions and related vegetables;
- sweet potatoes and yams;
- string beans and spinach;
- · strong cheeses; and
- vegetables of the cabbage family: broccoli, brussels sprouts, cabbage, cauliflower.

If you have a problem with excess gas, you may wish to limit your intake of gas-forming foods or eat them on occasions when gas production is not a concern to you.

To help decrease gas formation:

- eat regular meals;
- chew your food well;
- avoid chewing gum;
- avoid use of drinking straws; and
- avoid talking with food in your mouth.

Diarrhea

Foods that may cause diarrhea;

- highly seasoned foods;
- alcohol:
- coffee;
- salads;
- uncooked vegetables and some fruits;
 and
- foods that are natural laxatives such as prunes or licorice.

Limiting intake of these foods may reduce diarrhea. Including cheese or buttermilk in your diet may also help decrease diarrhea. Try drinking fluids half an hour after meals, rather than with meals.

ACTIVITIES

After you recover from your surgery you can slowly resume most of the activities you previously enjoyed. Try not to over exert yourself, rest allows the body to heal and strengthen. A physiotherapist may also provide useful information about safe methods to increase

your activities. Do not lift anything greater than 2.5 kg (5 pounds) during your recovery. The gentle abdominal strengthening exercises shown in Figure 11 on page 16 will help you to strengthen your core abdominal muscles as you recover from surgery. A pillow may be used to support your abdomen when coughing and sneezing. Avoid strenuous activities such as lifting, vacuuming, or golfing for at least 6-8 weeks and then resume gradually as directed by your surgeon. Wearing an abdominal support belt, binder, or garment during strenuous activity to support your abdominal muscles may be beneficial.

Swimming, hot tubs, and saunas may be resumed once your incision(s) is/are completely healed. The adhesive seal of your pouching system may breakdown faster in hot, humid weather, with heavy perspiration, with swimming and when exposed to warm water for long periods. Applying an extra waterproof barrier around the edges of your pouching system (e.g., like a picture frame) may protect the seal. There are different types of waterproof tapes/extenders/protectors that can be applied to help protect the adhesive seal when exposed to water. It is not necessary to cover your pouching system with an additional plastic bag or plastic wraps during swimming or bathing.

Note. If your pouch has a filter, the filter must be covered to protect it from the water while showering, bathing, swimming, and in hot tubs.

Smaller pouching systems are available and may be an option during some activities. Wearing a bathing suit or swim shorts with a pattern will help conceal your ostomy appliance. Some swimwear, activewear and clothes for intimacy have specialized pockets or panels to conceal and support your pouching system. Speak to your NSWOC for suggestions such as a support belt, device and other options that may be available. You may also find a selection at medical/surgical (ostomy supply stores).

PREVENTION OF A PARASTOMAL HERNIA

A parastomal hernia is a common complication, which may affect many people living with a stoma. It usually occurs slowly and can occur weeks, months, or years after stoma surgery. There is no one cause of a hernia development and so prevention techniques are the best way to reduce the risk of a hernia. If you have questions or concerns about parastomal hernias and prevention talk to your doctor or NSWOC. Many people don't realize they have a hernia until they see their NSWOC or surgeon.

A parastomal hernia may appear as an abnormal bulge around your stoma, shown in Figure 10. It may develop from weakness in the abdominal wall that allows loops of bowel to protrude through the muscle and lie between the skin and muscle layer. Skin irregularities and tension on the stoma can also occur depending on the hernia's size and shape.

Tips to reduce your risk of developing a parastomal hernia

Remember that a parastomal hernia can develop due to weakness in the abdominal muscles.

Figure 10 Signs of a parastomal hernia



Note. Reproduced with permission from Dansac

Here are some tips to reduce your risk:

- maintain a healthy weight. Being overweight is one of the biggest causes of parastomal hernia development. The additional weight causes increased pressure within your abdomen and pushes outwards on the abdominal wall;
- avoid lifting anything heavier than 2.2 kg (5 lbs) for up to 6 weeks after surgery, and sometimes longer if your abdominal muscles are weak. If necessary, use a wheeled trolley to help move heavier items or get someone to help you. When you lift or carry anything, do it safely using good body mechanics;
- avoid smoking or vaping;
- support your stoma and abdomen when coughing and sneezing. This is especially important during the first few months following surgery;
- maintain an active lifestyle, wear a supportive garment around your abdomen, such a support belt, binder or garment for exertional activities such as heavy lifting or heavy work during the initial 3 months following surgery or until at least 12 months postoperatively. Some people need to continue wearing a soft Lycra® support undergarment if their abdominal muscles are weak. Your NSWOC can discuss this with you and provide information about the most appropriate garment to meet your needs;
- keep your abdominal muscles strong.
 Strong abdominal muscles will help you lift and move safely while protecting your incision and helping to prevent a parastomal hernia. Try to maintain good posture at all times, especially while exercising. It is essential to stay active while maintaining core abdominal strength when doing activities. Perform gentle exercises to strengthen your abdominal muscles through swimming, walking, cycling, gentle abdominal stretches, and pelvic tilts; and
- referral to a physiotherapist, if

appropriate, prior to resuming more rigorous exercise after you have recovered from surgery. The physiotherapist will give you exercises that can protect and strengthen your abdominal core and help reduce your risk of a hernia.

Note. Be cautious if performing sit-ups, crunches, or any other abdominal muscle exercises. Your NSWOC or physiotherapist can share appropriate exercises to do; both before and after your surgery. Timelines may vary therefore always check with your surgeon or NSWOC before doing an exercise program to avoid potential injury.

Perform the following abdominal muscle strengthening exercises before your surgery and once discharged from hospital after your wound has completely healed.

Abdominal exercises prior to and following stoma surgery

Your abdominal area, together with your spine, is often considered the core of the body. The abdominal muscles, through which your stoma protrudes, are a part of this core.

Strengthening your body's core through exercise, shown in Figure 11, can improve your posture and balance and help reduce the risk of developing a parastomal hernia.

Figure 11 Exercises to strengthen your abdominal muscles to decrease the risk of a parastomal hernia

Note. Adapted from Core4 Exercises courtesy of Coloplast Canada

Tummy Tightening Breathing When to start

This exercise can be started within days of surgery. Provided all is well, you can even start while you are still in hospital, and your recovery is progressing.



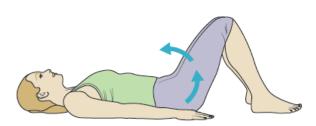
How to do it

Lie on your back, with your head supported by a pillow and your knees bent as far as is comfortable. Take a deep breath in and exhale through your mouth. As you exhale, tighten up the deep muscles in your lower tummy. You should feel a very gentle tightening. Do not try to lift your bottom or press your back into the bed. Hold for a count of 3-5 seconds, and then release. Breathe and relax and then repeat 3-5 times. As you progress, you can do the exercise on the floor without a pillow and aim for a stronger tightening feeling. Hold for a count of 10-15 seconds and breathe in and out two or three times. Repeat up to five times. Place your hands on your tummy so you can check and feel the muscles tightening. Try to do this two or three times per day.

Pelvic Tilt

When to start

This exercise can also be done days after surgery. Start gently and work within a small pain free range.



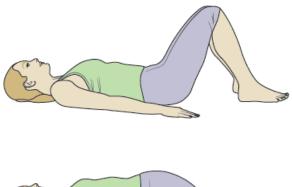
How to do it

Lie on your back, with your head supported by a pillow and your knees bent as far as is comfortable. Gently rock your pelvis upwards and flatten your back into the bed or floor. You should feel your tummy and bottom muscles tighten a little. Rock back to your starting position and repeat. Aim for five repetitions, and go gently. As you progress, allow your back to arch up a little more, and tighten your tummy more strongly as you push your back into the floor. Build up towards 20 repetitions. Try to do this two or three times per day.

Knee Rolls

When to start

Introduce this exercise 7-10 days after surgery. Always work within a pain free range and keep the movement very small to begin with.





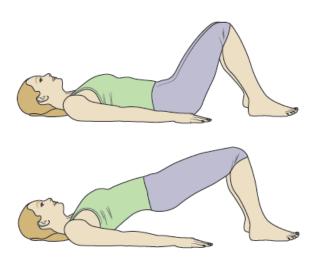
How to do it

Lie on your back, with your head supported by a pillow and your knees bent as far as is comfortable. Arms out to the sides. Keep your knees and ankles together and let your knees begin to drop over to one side. Only go as far as is comfortable, then tighten your tummy muscles and roll your knees over to the other side. Try to keep your shoulders down and your head relaxed, looking up with your eyes. Aim for five rolls. As time goes on, you can increase the range, so your knees drop lower and build up to 20 repetitions. Try to do this two or three times per day.

Hip Lift

When to start

Introduce this exercise 7-10 days after surgery and make sure you do it gently and with a small movement. Only go as high as feels comfortable.



How to do it

Lie on your back, with your head supported by a pillow and your knees bent as far as is comfortable. Gently tilt your pelvis backwards and tighten your pelvic floor muscles. Lift your bottom off the bed/floor and slowly lift up vertebrae by vertebrae until your bottom is off the bed. Lift your bottom as high as you comfortably can. Hold this for a moment, then slowly lower your spine and pelvis back down. Imagine you're lifting a string of pearls off the floor and back down again. Repeat 3-5 times increasing to 10-15 repetitions over time and lifting higher as you feel more comfortable. Try to do this two or three times per day.

Note. If you have any concerns about whether you should do the exercises, talk to your NSWOC or surgeon before you start.

Note. Additional information about prevention of a parastomal hernia can be found in the ConvaTec Me+ Recovery series located in the resources.

WORK

Your surgeon will tell you when you can safely return to work. This will depend on your speed of recovery and your type of work. Your NSWOC may also be a good resource to discuss resuming activities.

Carry extra ostomy supplies and clothes with you in case you need to change your pouching system when you are away from home. Do not leave your supplies in your vehicle as changes in temperature may affect the quality of the product and may result in leakage.

BATHING

Your pouching system may be left on completely or removed entirely when you take a bath or shower. If you use a two-piece pouching system and choose to wear it when bathing or showering, keep the pouch securely attached to the skin barrier. This will prevent the water from loosening the adhesive seal next to your stoma. The pouching system does not require additional covering with a plastic bag or plastic wrap while bathing, showering or swimming. Also, if you shower/bathe with your complete pouching system on, dry both sides of the pouch after bathing. This will avoid potential skin irritation from moisture.

Note. If your pouch has a filter, the filter must be covered to protect it from the water while bathing and showering.

Showering with your entire pouching system removed is a good way to cleanse your skin on the day you plan to completely replace your

pouching system. Use caution to avoid the forceful water stream directly on the stoma. Gentle use of soap and water will not injure or enter your colostomy stoma, but stool may pass from your stoma. With time, you probably will be able to predict the time of day when your colostomy is least likely to function, and you can bathe or shower at that time. First thing in the morning before you have anything to eat or drink is usually when your colostomy will likely be least active. Avoid using bath oils, moisturizing soaps, and lotions on the skin around your stoma because they may prevent your new pouching system from sticking.

CLOTHING

Pouching systems are lightweight, discreet, and low profile (may not be noticeable through clothing). Your pouch is less likely to be visible beneath clothing if emptied when a third to half full. Minor adjustments to clothing may be beneficial for comfort and to decrease visibility.

These adjustments may include:

- positioning waistbands above or below the stoma:
- avoiding tight belts over or below the stoma;
- choosing a pouch with a soft, absorbent cover material to provide comfort and keep the plastic away from the skin; and
- wearing undergarments that cover and support the pouching system. A soft elastic or Lycra® undergarment may be worn over the appliance. Specialized abdominal support belts and garments are also available.

WEIGHT GAIN AND WEIGHT LOSS

Weight gain and weight loss can change the shape of your abdomen. This may create new creases and skin folds around the stoma, which may interfere with your pouching system sticking. Additional stoma accessories or a different type of pouching system may be needed to prevent leakage and skin irritation. Contact an NSWOC for further advice.

TRAVEL

Yes, you can travel. The following are some tips:

- take at least double the supplies you normally use. Your supplies may not be available where you are travelling or be reimbursed outside your home province/ territory;
- protect your supplies from exposure to heat or cold;
- keep some supplies in your carry-on luggage in case your luggage is lost.
 Note. You may want to precut your flange/barrier so you do not have to carry scissors in your carry-on luggage;
- some airlines allow you extra carry-on luggage for medical supplies, consult the airline prior to travel to receive these extra accommodations; A letter from your doctor or NSWOC may be useful regarding the need to carry ostomy supplies in your hand luggage;
- if flying, ask for an aisle seat near the washroom:
- consider applying a new pouching system the day before or day of your travels;
- use every opportunity to empty your pouch even if the pouch is not full. The next opportunity may be a long time away;
- ask an NSWOC, your surgeon or family doctor or contact NSWOCC or Ostomy Canada Society about resources that may be available in the area you plan to visit (see resource list); and
- a seat belt must be worn when riding in a vehicle. Protect the stoma from the seat belt by placing a soft foam pad or a small pillow between the stoma and the seatbelt.

SEXUAL RELATIONSHIPS

Many people may have concerns about the effect the colostomy may have on sexual relationships.

Following surgery, it is normal to have concerns about your altered body appearance and your new colostomy. A colostomy is created for a variety of reasons, and with different surgical approaches. It is important to discuss your concerns and understand the impact of your surgical procedure on your sexual function with your partner, doctor or an NSWOC.

Sexual relations may be resumed when approved by your surgeon and when you feel physically and emotionally ready. It takes time for your body to recover from surgery and to adjust to the changes in your body.

Sexual problems can happen to both men and women. During pelvic surgery, there may be possible nerve damage in the perineal area. This damage, if present, may be temporary or permanent. Issues that may be experienced may include painful vaginal or anal intercourse. vaginal dryness, abdominal or pelvic pain, low libido, difficulties achieving orgasm, incontinence during sex, muscle tension, and issues with erection and ejaculation. Treatment options for sexual issues may be available and should be discussed with your family doctor, surgeon or an NSWOC. In some cases, people may benefit from referral to a professional specializing in sexual counselling. Your family doctor or surgeon can refer you.

The following suggestions may assist you in preparing for an intimate relationship:

- promote relaxation e.g., music, massage, lighting;
- take time for yourself and your partner for intimacy;
- show your partner the stoma;
- cuddle, kiss, touch and pet your partner to increase closeness with your partner;
- focus on feelings rather than the pouch;
- cover the pouch with special coverings or crotchless panties;
- empty your pouch before sexual activity;
- avoid foods and drinks that contribute to gas formation;

- try sexual positions that work for you;
- consider the use of lubrication;
- bathe or shower together (the entire pouching system can be removed);
- NEVER insert anything into the stoma;
 and
- have a good sense of humour if accidents occur.

ONGOING HOSPITAL OR CLINIC VISITS

You may have follow up clinic visits with your surgeon and NSWOC. When you go for your follow up visit with your surgeon or NSWOC:

- take all of your supplies for a complete change of your pouching system;
- inform the staff if your rectum and anus were removed or if you have a mucous fistula. This will help them plan your care;
- if a follow up bowel examination such as a barium enema or colonoscopy is planned, you will receive detailed information about the procedure and required preparation;
- laxatives are given to cleanse the bowel prior to these procedures. An openended drainable pouching system is recommended for management of increased colostomy output during this time:
- procedures using barium can be quite constipating. Ask your doctor about taking laxatives or doing irrigations for this potential problem; and
- contact an NSWOC, family doctor, or surgeon if you have concerns or questions.

If you are being treated for another medical condition (i.e., diabetes) or a different surgical condition, remember to tell your doctor and all health care providers at the hospital or clinic that you have a colostomy.

Colostomy Irrigation

Once you have fully healed and recovered from

surgery some people with a colostomy in the descending or sigmoid part of the colon (Figure 1) may choose to manage their colostomy output by irrigation. Irrigation is like an enema. Water is put into the bowel through the stoma to regulate stool passage from the colon. This method of colostomy management is optional and may not be appropriate for some people. Consult with your surgeon or an NSWOC to determine if irrigation is appropriate for you. If appropriate an NSWOC can instruct you in the correct technique and necessary supplies during your follow up visit.

MEDICAL ALERT IDENTIFICATION

Wearing a medical alert bracelet/pendant or carrying a card in your wallet is recommended. It informs health care professionals about your colostomy in case of an emergency. Discuss with an NSWOC or your doctor the information to include on the medical alert identification. Application forms are available at many pharmacies across Canada.

WHEN TO SEEK HELP

Contact your NSWOC, surgeon or doctor for the following problems:

- marked change(s) in stoma size or appearance;
- irritated skin around your stoma;
- excessive bleeding from the stoma;
- unresolved constipation or diarrhea;
- swelling near or around your stoma;
- increased tenderness or foul-smelling discharge from the perineal wound if the rectum and anus were removed;
- bleeding from the rectum, if the rectum was not removed; or
- ongoing problem(s) with leakage from your pouching system.

GLOSSARY

anesthetist – a medical doctor who specializes in giving medication to put people to sleep so surgery can be performed.

appliance – applied over the stoma to contain the stool and gas. Sometimes referred to as a pouching system.

bowel-also called intestine. It is the part of the digestive tract that lies between the stomach and the anus. There are two parts, the small intestine and the large intestine (colon). Often these words are used interchangeably.

colon-large intestine may also be called the colon.

colostomy-a surgically created opening into the colon, diverting stool from its normal route.

dehydration-condition resulting from excessive fluid loss.

electrolytes-normal components of body fluids such as salt and potassium.

enzymes–substances in the mouth, stomach and small intestine that cause the breakdown of food. Enzymes can also irritate the skin if stool, which contains enzymes, remains on the skin.

NSWOC-a nurse specialized in wound, ostomy, and continence care.

NSWOCC-the organization for Nurses Specialized in Wound, Ostomy and Continence Canada.

ostomy–a surgically created opening into the digestive or urinary system, diverting stool or urine from its normal route. Sometimes the word ostomy is used as a shortened version for the word colostomy.

parastomal hernia—is an abnormal bulge around your stoma. It develops from weakness in the abdominal wall that allows loops of bowel to protrude through the muscle and lie between the skin and muscle layer.

perineal—the area located between the genitals and the anus (rectum).

pouching system—also called an appliance. Composed of a skin barrier and pouch. May be a one or a two-piece system.

stool-also referred to as feces or poop: waste product from digestion that is passed from the bowel.

stoma-the part of the bowel that is seen outside of the body on the abdomen following ostomy surgery.

transit time-the time required for the digestion of food from eating to the passing of stool.

RESOURCE LIST

Canada's Food Guide

https://food-guide.canada.ca/en/

Canadian Cancer Society

https://www.cancer.ca

Canadian Society of Colon and Rectal Surgeons

https://cscrs.ca

Crohn's and Colitis Canada

https://crohnsandcolitis.ca

Disability Tax Credit for people living with an ostomy

https://www.ostomycanada.ca/federal-disability-tax-benefits/

GI Society | Canadian Society of Intestinal Research

https://badgut.org

International Association for Medical Assistance to Travelers

https://www.iamat.org

Me+ Recovery series

https://meplus.convatec.com/articles/meplus-recovery-series-phase-1/

Medical Alert Foundation Canada

https://www.medicalert.ca

Nurses Specialized in Wound, Ostomy & Continence Canada

https://nswoc.ca

Ostomy Canada Society

http://www.ostomycanada.ca

United Ostomy Association of America (UOAA)

https://www.ostomy.org

Wound Ostomy & Continence Nurses Society

https://www.wocn.org

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YOUR NOTES	



NURSES SPECIALIZED IN WOUND, OSTOMY AND CONTINENCE CANADA (NSWOCC)

www.nswoc.ca

Nurses Specialized in Wound, Ostomy and Continence Canada (NSWOCC) is a registered charity of nurses specializing in the nursing care of patients with challenges in wound, ostomy, and continence. NSWOCC provides national leadership in wound, ostomy and continence promoting high standards for practice, education, research, and administration to achieve quality specialized nursing care.

ALL TRADEMARKS ACKNOWLEDGED

