



NURSES SPECIALIZED IN  
WOUND, OSTOMY AND CONTINENCE  
CANADA

INFIRMIÈRES SPÉCIALISÉES EN  
PLAIES, STOMIES ET CONTINENCE  
CANADA

# A GUIDE TO LIVING WITH AN ILEAL CONDUIT

2nd edition. 2022

## **DISCLAIMER**

A nurse specialized in wound, ostomy, and continence (NSWOC) brings expertise achieved through specialized education, mentoring, and clinical experience. While every effort has been made to ensure the accuracy of the contents at the time of publication, neither Nurses Specialized in Wound, Ostomy and Continence Canada nor the authors offer any guarantee as to the accuracy of the information contained within nor accept any liability with respect to loss, damage, injury, or expense arising from misinterpretation, error or omission within the contents of this work. It is recommended that persons with an ostomy seek further advice from their healthcare professional for any questions or concerns related to their ostomy.

## **HOW TO CITE**

To reference this guide, use the following citation: Nurses Specialized in Wound, Ostomy and Continence Canada (NSWOCC). A Guide to Living with an Ileal Conduit. (2nd ed.) 2022.

## **COPYRIGHT STATEMENT**

This document may be produced, reproduced, and published in its entirety, without modification, in any form, including in electronic form, for educational or noncommercial purposes. Should any adaptation of the material be required, for any reason, written permission must be obtained from NSWOCC.

## **ACKNOWLEDGEMENTS**

A Guide to Living with an Ileal Conduit was revised by Debra Johnston, MN, BScN, RN, NSWOC, WOCC(C) and Nancy Parslow, MCISc-WH, RN, NSWOC, WOCC(C). A special thank you to Laura Robbs, MN, RN, NCA, NSWOC, WOCC(C) for sharing her expertise. Produced by John Gregory.

## TABLE OF CONTENTS

<b>INTRODUCTION</b>	<b>4</b>
<b>THE URINARY TRACT</b>	<b>4</b>
<b>WHAT IS AN ILEAL CONDUIT?</b>	<b>4</b>
<b>WHAT IS A STOMA?</b>	<b>5</b>
<b>WHAT IS A POUCHING SYSTEM?</b>	<b>6</b>
<b>PREOPERATIVE PREPARATION</b>	<b>7</b>
<b>POSTOPERATIVE EXPECTATIONS</b>	<b>8</b>
<b>LIVING WITH AN ILEAL CONDUIT</b>	<b>8</b>
<b>GOING HOME</b>	<b>8</b>
<b>ONGOING CONSIDERATIONS FOR DAILY LIVING</b>	<b>9</b>
Work	9
Activities	9
Bathing	9
Skin Care	10
Clothing	10
Weight Gain and Weight Loss	11
Travel	11
Sexual Relations	12
Odour Control	13
<b>MEDICATIONS</b>	<b>13</b>
<b>DIETARY MANAGEMENT</b>	<b>13</b>
<b>WHAT IS A PARASTOMAL HERNIA?</b>	<b>14</b>
Tips to reduce your risk of developing a parastomal hernia	14
<b>ABDOMINAL EXERCISES BEFORE AND FOLLOWING STOMA SURGERY</b>	<b>15</b>
Tummy Tightening Breathing	15
Pelvic Tilt	15
Knee Rolls	16
Hip Lift	16
<b>POSTSURGICAL HOSPITAL OR CLINIC VISITS</b>	<b>17</b>
<b>MEDICAL ALERT IDENTIFICATION</b>	<b>17</b>
<b>HOW TO TAKE A URINE SAMPLE FROM YOUR ILEAL CONDUIT</b>	<b>17</b>
<b>GLOSSARY</b>	<b>19</b>
<b>RESOURCE LIST</b>	<b>20</b>
<b>REFERENCES</b>	<b>21</b>

## INTRODUCTION

This guide has been created for adults, and will provide you with helpful information as you learn to live with an [ileal conduit](#). Many people worry about how they are going to live with an ileal conduit, also called a [urostomy](#). Many adults and children have these surgeries every year. Most resume their previous lifestyles following surgery.

There are common reasons for performing an ileal conduit in an adult. These may include bladder cancer, a spinal cord injury, or diseases such as multiple sclerosis. This guide does not cover children. Children born with urinary challenges may need a different type of temporary urinary diversion.

Resources are available to assist you and your family as you prepare for and recover from surgery. A [nurse specialized in wound, ostomy, and continence \(NSWOC\)](#) has specialized knowledge and experience in helping people who will be having an ileal conduit created. They can answer your questions, and address any concerns that you may have. [Bladder Cancer Canada](#) provides support groups for those facing bladder cancer and ileal conduit surgery. [Ostomy Canada Society](#) provides support groups to assist those with an [ostomy](#). They provide an excellent resource for information about living with an ostomy. Volunteers who are living with an ileal conduit may be available to visit you in the hospital or when you return home. A local chapter may be near you; see the resource list for contact information.

Make notes where you have questions or would like to discuss something further. To help you understand the medical terms, you will find blue words explained in the glossary. Words or phrases in red text are links. Click on the links for more information.

## THE URINARY TRACT

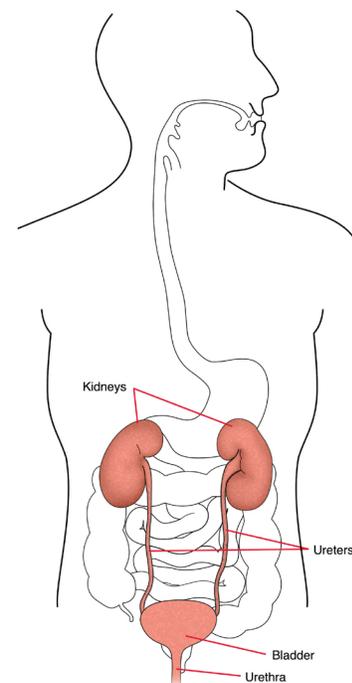
The urinary tract consists of two kidneys, two ureters, one bladder and one urethra (Figure 1). The kidneys produce urine which flows down the ureters into the bladder. The bladder is a soft balloon-type organ stores urine. It stretches as it fills with urine and contracts when it empties. The urethra is the tube that drains urine from the bladder to the outside of the body.

## WHAT IS AN ILEAL CONDUIT?

An ileal conduit created by surgery [diverts](#) urine from its normal route. This surgery is necessary when the bladder must be removed or bypassed.

An ileal conduit or urostomy is the most common type of urinary diversion. To create the [conduit](#), the surgeon removes a short piece (about 10 cm) of small intestine (ileum) from the bowel (Figure 2). The small intestine is rejoined and functions as it usually did. During your surgery the ureters will be disconnected from your bladder and transplanted into the short piece of small [bowel](#) (ileum) that was separated earlier. One end of this short piece of small

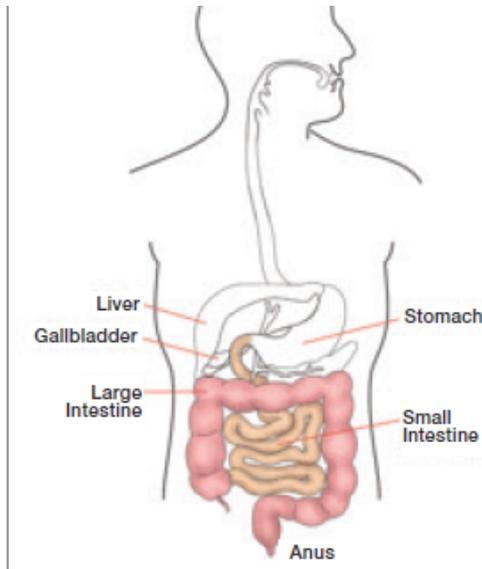
Figure 1 Anatomy of the urinary tract



Note. Reproduced with permission of Hollister Limited

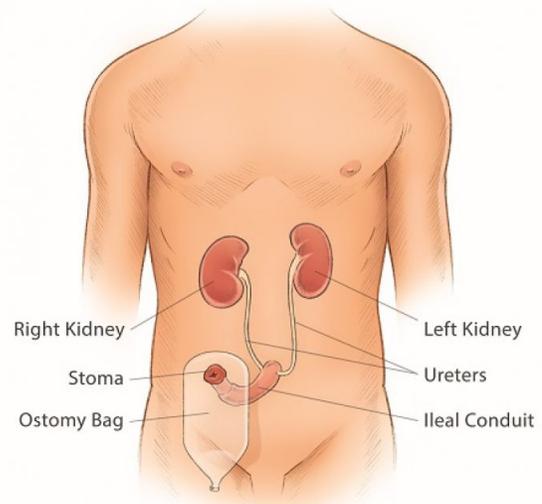
bowel is sutured closed, and the other end is brought out to your skin on the surface of your abdomen. This end is turned back on itself like a cuff of a sleeve creating the [stoma](#), which is then sewn to the skin to secure. This procedure creates your ileal conduit (Figure 3).

**Figure 2** Anatomy of the small bowel



Note. Reproduced with permission of Hollister Limited

**Figure 3** Illustration of an ileal conduit



Note. Reproduced with permission of Bladder Cancer Canada

As urine leaves your kidneys by flowing through the ureters and your ileal conduit until it leaves your body through the opening in the stoma. Since the ileal conduit is like a tube, it is not able to store urine. Your urine will continue to drip through the stoma as the kidneys produce it. A pouching system is applied to the skin to collect the urine as it drains from the stoma. Change the pouching system is often.

## WHAT IS A STOMA?

The cuffed end of the conduit (segment of intestine visible on the abdomen) is called a stoma. For an ileal conduit, the stoma is usually placed on the right side of the abdomen below the [umbilicus](#) (navel). A stoma is soft, warm, moist and pinkish-red in colour like the tissue inside the mouth. Urine will flow through an opening located in the center of the stoma. There is no sensation in the stoma. It doesn't hurt when touched or when you urinate.

The stoma is swollen and larger after surgery than it will be after healing takes place. As healing occurs, the stoma usually shrinks in size over the first six to eight weeks. The size of a stoma varies depending on the individual. When wiped or cleansed, the stoma may bleed. This is normal due to the many tiny blood vessels located close to the surface. Slight bleeding is not a concern and usually stops with gentle pressure. Contact your doctor or NSWOC for excessive bleeding that does not stop. The stoma shown in Figure 4 usually protrudes above the skin. This makes it easier to see the stoma and attach the pouching system to the abdominal skin to collect the urine.

The small intestine produces mucus. The urine will always contain some mucous threads. A large amount of mucus in the urine may be seen after surgery but will decrease over time.

## WHAT IS A POUCHING SYSTEM?

A pouching system/appliance contains the urine and protects the skin around the stoma. A variety of urinary pouching systems are available to meet individual needs. An NSWOC or specialized nurse will show you examples of pouching systems. You can select a pouching system which best suits your physical abilities, lifestyle, and personal preferences. Try more than one pouching system to decide which is most comfortable and best meets their needs. A pouching system/appliance consists of a pouch to collect the urine and a skin barrier to protect your skin by creating a seal around your stoma (Figure 5).

Pouching systems are:

- odour resistant;
- lightweight;
- may be clear or see through; and
- low profile—not noticeable through clothing.

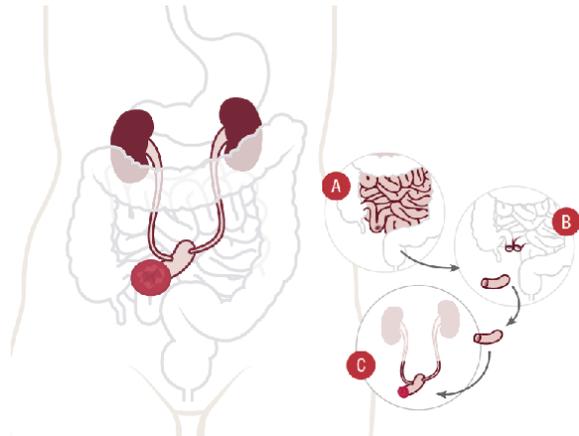
They may be:

- one-piece or two-piece systems/appliances; and
- precut, moldable, or cut-to-fit to the size of the stoma opening.

Urinary pouches contain a valve to prevent urine from flowing back up around the stoma. The pouch also has a tap like or spigot device at the bottom allowing for easy emptying of the pouch. Empty the pouch when it is a third to half full to avoid overfilling and prevent potential leakage. Connect the pouch at night to a special drainage tube and bottle or bag to avoid having to get up to empty the pouch. Leaving a small amount of urine in the pouch before attaching it to the tubing prevents suction forming in the pouch. Position the drainage system to avoid kinking, twisting, and pulling on the tubing. Ensure that urine is flowing from the pouch into the drainage bag/bottle before going to sleep.

The number of days between your pouch changes will depend on the shape of your body and stoma, and the type of pouch system you use. Replace the pouching system immediately if a leakage occurs. Otherwise, replace twice a week as the skin barrier around your stoma begins to dissolve. The length of time between pouching system or appliance changes varies. The size of your stoma will reduce during the first six to eight weeks following surgery. Measure the stoma each time you change your appliance. Cut the barrier opening to the size of your stoma to protect the skin around your stoma. Consult with an NSWOC to provide guidance in selecting the pouching system that is best for you. Ask your NSWOC, Bladder Cancer Canada, or Ostomy Canada Society for other resources in your community or online. Your doctor or nurse may know where you can find further information: also refer to the [resource list](#).

Figure 4 A stoma from an ileal conduit



Note. Reproduced with permission of Hollister Limited

Figure 5 A pouching system or appliance



Note. Reproduced with permission of Hollister Limited

Some provinces/territories have funding grants help with the cost of ostomy appliances/pouching systems. Get specific information from your NSWOC, medical/surgical supplier, pharmacist, or social services.

## PREOPERATIVE PREPARATION

Preoperative teaching about your ileal conduit will be available in your preadmission clinic. You may find it helpful to ask a relative or friend to go with you to ask questions or take notes.

You will also meet a variety of health care providers who may include doctors, nurses, dietitian, [anesthetist](#) and an NSWOC. These professionals discuss different aspects of your operation and answer your questions. You will get information about your surgery, including removal of the bladder, and creation of the ileal conduit. For men this may include removal of the prostate and seminal vesicles. For women this may also include removal of the uterus, ovaries, and part of the vagina. Instructions will also be provided on specific preparations to prepare for your surgery.

Preparation for surgery may include tests or medications. Tests may include X-rays, blood tests, urine test, or an [electrocardiogram](#) (ECG). There will be information about dietary restrictions. The surgery removes a small piece of your small intestine (bowel) to create the ileal conduit. Some surgeons may ask you to take [laxatives](#), antibiotics and follow a clear fluid diet to prepare the bowel before surgery. It is important to drink extra water to replace the fluids being lost during bowel cleansing; other surgeons may only recommend nothing by mouth after midnight before surgery. Discuss questions or concerns with your surgeon ([urologist](#)).

An NSWOC will show you a sample of the ostomy pouch you will be using after your surgery. A preoperative ostomy kit may also be given.

An NSWOC will:

- review steps on how to change the ostomy appliance;
- how to empty the pouch through the tap or spigot-like closure; and
- how to connect to the straight drainage system for nighttime.

An NSWOC can review lifestyle information such as exercise and bathing. On discharge you may receive community nursing support. These services will also be discussed.

Your surgeon (urologist) or an NSWOC will look at your abdomen before surgery to select the best location for your stoma. The stoma site location is decided with your input as well as the assessment by the surgeon or NSWOC. 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 pouching system will stick or stay on better. Your lifestyle, clothing, and specific physical needs are also important considerations. Every effort is made to situate the stoma in the best possible location. Sites vary depending upon 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 site of your stoma. Abdominal muscle strengthening exercises shown on [page 15](#) may be recommended before surgery.

## POSTOPERATIVE EXPECTATIONS

After surgery, members of the health care team look after your physical needs. Medication is given to relieve postoperative pain. You are guided and encouraged to do deep breathing exercises. You are assisted in moving and walking within the first 24 hours. All this helps speed your recovery from surgery.

You will have:

- an intravenous (iv) giving you fluids and medications;
- a dressing may cover your incision which may be closed with staples. If you have smaller incisions these will be covered with small white steri-strips that will fall off on their own;
- a drainage tube in the abdomen to remove any fluid from the operative site;
- a temporary drain will be left in for a few days to remove pelvic fluid;
- a urostomy pouching system; and
- two stents (tiny tubes) into your stoma allow urine to flow freely as you recover. Stents are temporary and removed 5 days to 2 weeks or longer after surgery. This may depend on the surgeon's preference.

You may have:

- a suction tube inserted through your nose into your stomach to keep it empty until your bowel function returns to normal; and
- compression stockings may be applied to help the circulation in your legs.

Your ileal conduit functions immediately. A nurse will apply the pouching system over your stoma and connect it to a bedside drainage bag before you leave the operating room. The first pouches may be transparent to allow nurses and doctors to assess the stoma and urine colour. Nurses check the condition of your stoma and ensure the pouching system is intact. Nursing staff measure your urine output, which will be blood tinged for the first few days. This is normal.

## LIVING WITH AN ILEAL CONDUIT

As you begin to recover from surgery, you will be taught how to care for your ileal conduit. It is important that you become as independent as possible with your ileal conduit care before going home. With time and practice, you will develop confidence, and the care will become routine. Support and understanding from significant others are helpful during your recovery. If you wish, a family member may be included in your teaching sessions so they can also become familiar with your care. Never hesitate to ask questions. After discharge, nursing support and NSWOC services may be available in your community as you become more confident and independent.

## GOING HOME

Before discharge from the hospital, you may have supplies ordered for you. Get the name(s) of a pharmacy or medical/surgical supply store where you can buy them. Have at least two to three extra sets of pouching systems and supplies with you when you leave the hospital.

Your surgeon will arrange a follow-up appointment before your discharge. A follow-up visit from an NSWOC is worthwhile to reassess your stoma. It can ensure you are using an appropriate pouching system as your stoma reduces in size. Ask your surgeon if an NSWOC is available in your community. Contact [NSWOCC](#) listed in the resource list.

## ONGOING CONSIDERATIONS FOR DAILY LIVING

It is normal to have concerns about your altered body appearance and passing urine. 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. Yet, not everyone needs to know about your ileal conduit. It is your decision about whom you wish to tell. Your surgeon (urologist), family doctor or an NSWOC are available to help you adjust to living with your ileal conduit. Talking with an Ostomy Canada Society volunteer who has experienced similar surgery may also be helpful. Inquire from your doctor or an NSWOC if a local chapter and visitor are available in your area.

Carry extra ostomy supplies with you in case you need to change your pouching system when you are away from home.

### Work

Your surgeon will tell you when you can safely return to work. This will depend on the speed of recovery and your type of work. Have ostomy supplies at work in case your pouch leaks and you need to change it.

### Activities

You can resume activities enjoyed before surgery after you recover from your operation. The gentle abdominal strengthening exercises shown in Figure 8 will help you recover from surgery. Avoid strenuous activities such as lifting, vacuuming, or golfing for at least 6-8 weeks and then resumed as directed by your surgeon. Wear a support belt to support your abdominal muscles and prevent the development of a hernia. Resume swimming, hot tubs, and saunas once your incision(s) heal(s) completely. The adhesive seal on your pouching system may breakdown faster in hot, humid weather and during long periods exposed to warm water. Applying an extra waterproof barrier tape around the edges of your appliance (e.g., like a picture frame) may protect the seal. Wearing a bathing suit or boxer trunks with a pattern will help to conceal your ostomy appliance. There are various intimate clothes, swimwear and activewear options available. Some have specialized pockets or panels can conceal and secure your pouching system.

### Bathing

Your pouching system may be left on or removed when you bathe 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 wafer. This will prevent the water from loosening the adhesive seal.

Showering with your pouching system off is a good way to cleanse the skin on the days you are planning to change your pouching system. Take care to avoid a forceful water stream on the stoma. Gentle use of soap and water will not injure or enter your stoma, but urine will flow out. Avoid soaps that contain oils, moisturizers, and perfumes on the skin around the stoma. Otherwise, this may prevent nonadherence of the next skin barrier. If you happen to shower/bathe with your appliance on, dry both sides of the pouch after bathing. This will avoid potential skin irritation from moisture.

## Skin Care

Care of the skin around the stoma is necessary. The skin around the stoma should not have any redness and irritation and look like the skin on the rest of your abdomen. Check your skin and stoma each time you change your pouching system. The best time to change your pouch may be in the morning before drinking.

Cleanse the skin around the stoma with warm water. It is not necessary to use soap. If you choose to, use a mild unscented, non-oil-based soap and rinse your skin well with warm water. Pat the skin dry. Remove any adhesive residue remaining on the skin with an ostomy adhesive remover. Use warm water to remove the adhesive remover. Residue from the remover may interfere with the adherence of the appliance. To keep the skin dry around the stoma during your pouch change, use a clean, compact cotton roll or gauze to absorb urine. Never insert the gauze or cotton roll into the stoma. After the skin is cleansed and dried, you will apply a new pouching system.

Generally, it is not necessary to cleanse the stoma. Yet, 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 bath oils, creams, and lotions on the skin around your stoma. They may prevent your pouching system from adhering and irritate the skin under the appliance. Also, the use of powders around the stoma unless advised to do so by your doctor or NSWOC. Powders can also interfere with the adherence of the pouching system.

Hair on the skin around the stoma can be removed by trimming with scissors or electric clippers. Never use commercial hair removal products. The use of a razor may cut the skin or cause 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;
- incorrect appliance fit (i.e., opening cut too large);
- leakage of urine onto the skin;
- sensitivity to products; or
- excessive moisture trapped against the skin under the appliance.

If you experience skin irritation and it does not resolve, contact an NSWOC or your doctor for help. Remember the skin under your appliance should resemble the skin on the rest of your abdomen.

## Clothing

Pouching systems are lightweight, discreet, and low profile (may not noticeable through clothing). Your pouch will not be visible when worn beneath undergarments if emptied when a third to half full. Make minor adjustments in clothing for comfort. 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 material cover 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 supportive belts and undergarments are also available.

## Weight Gain and Weight Loss

Weight gain and weight loss can change the contours of your abdomen. This creates new creases and skin folds around the stoma. Skin folds and creases may create problems with the seal of your appliance. Have extra stoma accessories available to ensure a secure seal around your stoma. This prevents leakage or skin irritation if you change the type of pouching system. Contact an NSWOC for further advice.

## Travel

Yes, you can travel with a little extra planning. Suggestions to avoid potential problems include:

- taking at least double the supplies you use. Your supplies may not be available where you are travelling or may not be reimbursable outside your home province/territory;
- protecting your supplies from exposure to heat or cold;
- keeping supplies in your hand luggage to avoid exposure to extreme temperatures and in case of lost luggage;
- assessing the quality of local drinking water; if unsafe to drink, use bottled water;
- avoiding delays at customs by carrying a letter from your surgeon that explains your ostomy surgery;
- connecting to a leg bag for longer travel will provide extra capacity for urine; and
- asking an NSWOC, your doctor or organization in the resource list about where you plan to visit.

Use every opportunity to empty your pouch even if the pouch is not a third to half full. The next opportunity may be a long way off.

When camping, sleep on a cot raised off the ground allowing the urine to drain into a night drainage bottle or bag. Collapsible night drainage bags are useful. Check with your ostomy supplier or an NSWOC.

When riding in a vehicle, protect the stoma from the seat belt. Place a soft foam padding or a small pillow between the stoma and the seatbelt to protect the stoma.

## Sexual Relations

Following surgery, it is normal to have concerns about changes in your body and how you urinate. What effect may the ileal conduit have on sexual relationships? Discuss concerns with your partner, surgeon, family doctor or an NSWOC. Table 1 discusses possible results of surgery and impact on sexual function.

**Table 1** *Impact of cystectomy on sexual function*

	Possible Results of Cystectomy Surgery	Possible Impact on Sexual Function
Men	<ul style="list-style-type: none"> <li>Prostate and seminal vesicles may be removed.</li> <li>Nerves responsible for erections may be damaged or removed if prostate is taken out.</li> </ul>	<ul style="list-style-type: none"> <li>You cannot get someone pregnant. You may be able to orgasm, but it will be "dry" as there is no ejaculate.</li> <li>You may not be able to get or keep an erection.</li> </ul>
Women	<ul style="list-style-type: none"> <li>Uterus, cervix, fallopian tubes, ovaries may be removed.</li> <li>If cervix removed and vagina closed at the top, the vagina may be shorter.</li> <li>If ovaries removed, your body will not be producing estrogen.</li> </ul>	<ul style="list-style-type: none"> <li>Your periods stop and you cannot get pregnant, but you may still feel sexual pleasure and orgasm.</li> <li>Penetrative sex may be uncomfortable.</li> <li>Vaginal dryness may make penetrative sex uncomfortable.</li> </ul>

Sexual relations may resume 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. Treatment options, as discussed in the Table 2 may be available. Discuss with your doctor, surgeon or NSWOC.

**Table 2** *Available treatment options*

Men	<ul style="list-style-type: none"> <li>For erectile dysfunction (ED): discuss the following treatments with your urologist; pills for ED (e.g., Viagra®, Cialis®, Levitra®), vacuum erection device, intraurethral suppository (MUSE®) and penile injections (e.g., Caverject®).</li> </ul>
Women	<ul style="list-style-type: none"> <li>For vaginal dryness: discuss estrogen replacement therapy or local vaginal estrogen therapy (cream/tablet in vagina) with your doctor. If estrogen replacement is not desired, try non-hormonal polycarbophil moisturizing gel (e.g., Replens™)</li> <li>For vaginal shortening: work with a pelvic floor physiotherapist to gradually stretch vaginal tissue. One place to find this specialist physiotherapist is at Welcome - Pelvic Health Solutions. Use female superior position during intercourse to control depth of penetration to improve comfort.</li> </ul>

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;
- try sexual positions that work for you;
- bathe or shower together (the appliance can be removed);
- never insert anything into the stoma; and
- have a good sense of humour if accidents occur.

Discuss ongoing concerns with your NSWOC, family doctor or urologist. A discussion with a professional specializing in sexual counselling may be beneficial for you and your partner. Your family doctor or urologist can refer you.

## Odour Control

Ostomy pouches are odour resistant. It is advisable to:

- replace the pouching system on a regular basis (every 4 to 7 days);
- replace the pouching system if leakage occurs. Never tape over an area of leakage as it traps urine against the skin that could lead to skin irritation and odour;
- empty the pouch when it is a third to half full;
- keep the tap on the bottom of the pouch completely clean and dry;
- check the new pouch for pinholes or flaws before putting it on; and
- cleanse your night drainage bottle or bag, tubing and adapter daily with a vinegar and water solution (suggest a 1:3 ratio). Hang to dry.

Slight odour is normal when you empty your pouch. If you notice an odour stronger than normal or a darker urine colour, your urine may be concentrated, or you may be developing an infection. Some foods and medications may also result in changes in odour and colour of your urine. Examples include asparagus and seafood. These can give urine a foul odour, and beets which may colour the urine red. This is a normal reaction and not a concern.

To help reduce odour:

- prevent the urine from becoming concentrated by drinking at least eight to ten glasses of water each day. Unless a medical condition restricts your fluid intake;
- review methods to keep your urine acidic with your physician and dietitian; and
- Vitamin C tablets may help to keep the urine acidic, but some people are at risk of developing kidney stones. The benefits of vitamin C to acidify urine remains controversial. Discuss the dosage and the benefits with your surgeon.

## MEDICATIONS

Medications are absorbed in different areas of the digestive tract. It is unlikely that your ileal conduit will alter the effectiveness of medications. Review all your medications, including nonprescription medicines, with your family doctor or pharmacist. Some drugs, such as antibiotics or vitamins, may discolour your urine or cause a strange odour. 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 a doctor.

Always carry a list of all the medications you take. Get a medication record from your pharmacy. Check with your pharmacist, or doctor when you begin any new medication or supplements.

## DIETARY MANAGEMENT

The diet of a person with an ileal conduit usually requires little or no change. There is no need for a special diet unless you have restrictions from other medical conditions. You should drink eight to ten glasses of water each day to prevent dehydration. Maintaining healthy kidneys is vital to keep your urine diluted. If this is not possible for other health reasons, talk to your doctor.

The first days to weeks after surgery are a period of change. Any type of intestine/bowel surgery prompts a gradual progression in diet. Start with clear fluids (e.g., juice, broth, Jell-O), then 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. Canada's Food Guide for Healthy Eating provides up-to-date advice. Everyone differs in the foods they can tolerate. If you wish to see a dietitian, ask your family doctor or an NSWOC for a referral.

## WHAT IS A PARASTOMAL HERNIA?

A **parastomal hernia** is a common complication. It affects many people living with a stoma. It often occurs slowly over weeks, months, or years after stoma surgery. Many people don't realize they have a hernia until they see their NSWOC or surgeon.

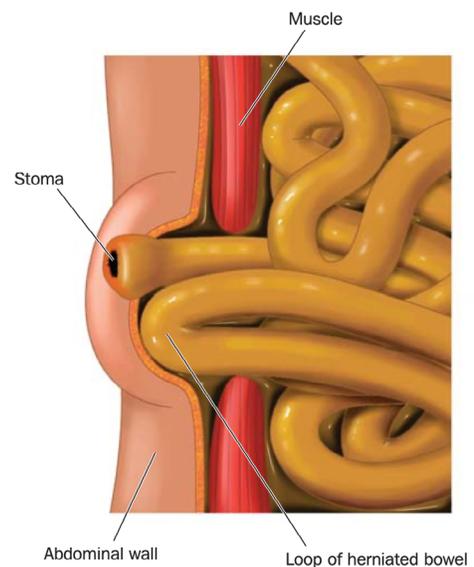
A parastomal hernia is an abnormal bulge around your stoma, shown in Figures 6 and 7. It develops from weakness in the abdominal wall. This allows loops of bowel to protrude through the muscle and lie between the skin and muscle layer. Skin irregularities and tension on the stoma can also occur depending on the hernia's size and shape.

### Tips to reduce your risk of developing a parastomal hernia

A parastomal hernia can develop due to weakness in the abdominal muscles. Here are some changes you can make to reduce your risk:

- maintain a healthy weight. Being overweight is one of the biggest causes of parastomal hernia development. Extra 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. 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, use good posture and technique;
- avoid smoking or vaping;
- support your stoma and abdomen when coughing. This is especially important during the first few months following surgery;
- wear a supportive undergarment. To maintain an active lifestyle, use a support belt or girdle when doing exertional activities, heavy lifting or heavy work after the initial 3 months after surgery

**Figure 6** Representation of a side view of a parastomal hernia



Note. Reproduced with permission of Mark Allen Group (Thompson, 2008)

**Figure 7** Signs of a parastomal hernia



Note. Reproduced with permission of Dansac

and until at least 12 months. Some people need to continue wearing a support garment if their abdominal muscles are weak. Your NSWOC can discuss this with you and provide information about the most appropriate garment for you; and

- keep your abdominal muscles strong. Strong abdominal muscles will help you lift and move safely while protecting your incision. They form the basis for parastomal hernia prevention. Try to maintain good posture at all times, especially while exercising. Stay active and perform gentle exercises to strengthen your abdominal muscles. Go swimming, walking, cycling, do gentle abdominal stretches and pelvic tilts.

*Note.* Exercise care with sit-ups, crunches, or any other abdominal muscle exercises. Your NSWOC will share appropriate exercises to do; both before and after your surgery.

Always check with your surgeon or NSWOC before doing an exercise program to avoid potential injury.

## ABDOMINAL EXERCISES BEFORE 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 core muscles with exercise improves posture, balance, and reduces the risk of a parastomal hernia. See the suggestions in Figure 8. Wait until your wound has completely healed.

### Tummy Tightening Breathing

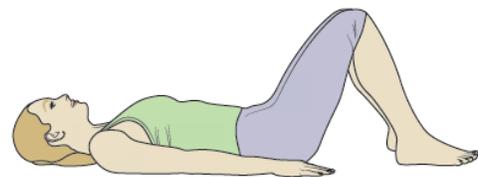
#### *When to start*

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.

**Figure 8** Exercise to prevent a parastomal hernia



*Note.* Adapted from Core4 Exercises courtesy of Coloplast Canada

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 this 'brace' feeling 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 the brace for a count of 10-15 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.*

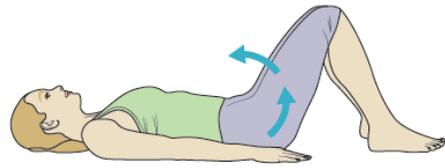
### Pelvic Tilt

#### *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**

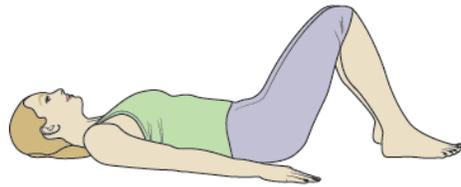
Lie on your back, with your head supported by a pillow and your knees bent as far as is comfortable. Gently rock your pelvis upwards and flatten your back into the bed or floor. You should feel your tummy and bottom muscles tighten a little. Rock back to your starting position and repeat. Aim for five 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 reps.



*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/floor. 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 bed/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.*

## POSTSURGICAL HOSPITAL OR CLINIC VISITS

After your surgery you usually have a follow-up clinic visit with your surgeon. When you go for your follow-up visit(s) with your surgeon or NSWOC, take enough supplies with you for a complete pouching system change.

Tell health care providers about your ileal conduit if you are treated for another medical or surgical condition. Be sure to inform staff if your bladder was removed.

## MEDICAL ALERT IDENTIFICATION

Wearing a medical alert bracelet/pendant or carrying a card in your wallet is critical. It informs health care professionals about your ileal conduit 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.

Contact a health care professional if the following issues occur:

- urine flow has slowed down or stopped;
- excessive bleeding from the stoma;
- marked change(s) in stoma size, colour or appearance;
- blood and or clots in the urine;
- expelling hard stones through your stoma;
- persistent problem(s) maintaining a good seal with your pouching system;
- irritation or red skin around your stoma;
- the appearance of a gritty white substance on or around your stoma;
- tender, greyish, bumpy or wart-like skin around the stoma;
- swelling near or around your stoma; and
- excessive mucus and odour in the urine.

Signs and symptoms of a urinary tract infection after bladder removal include:

- fever;
- chills;
- back pain;
- nausea and vomiting;
- foul smelling and cloudy urine; or
- generally feeling unwell.

## HOW TO TAKE A URINE SAMPLE FROM YOUR ILEAL CONDUIT

Your doctor orders a urine sample to check for infection. Do not take the sample from your pouch. Urine from the pouch already contains bacteria, which may lead to a false result. Your skin and stoma are also covered with bacteria.

To get a urine sample, you or your nurse will follow these steps:<sup>†</sup>

1. Wash hands and use standard precautions.
2. Apply clean gloves.
3. Place a towel or absorbent pad under the stoma for privacy and absorption of urine if needed.
4. Open the supplies, maintain sterility.
5. Remove pouch or pouching system and dispose.
6. Remove gloves and wash hands.

7. Apply sterile gloves.
8. Use sterile technique.
9. Cleanse the stoma with a cleansing solution. Use a circular motion from the stoma opening outward.
10. Blot the stoma with sterile gauze.
11. Discard the first few drops of urine by allowing urine to drip onto sterile gauze.
12. Hold the sterile specimen cup under the stoma. Collect about 10-20 ml.
13. Clean and dry the stoma and peristomal skin.
14. Apply a new pouching system.
15. Discard supplies.

† adapted from [WOCN 2018: Urostomy Urine Sample Collection Instruction Card](#).

As your bladder has been removed, never allow anyone to try to insert anything into your urethra. In cases where your bladder was not removed, you may sometimes need to irrigate the bladder. Your surgeon or doctor will discuss the care you need.

## GLOSSARY

**anesthetist**—a medical doctor who specializes in giving medication to put people to sleep for surgery.

**bacteria**—a one-celled organism some of which can cause infection.

**bowel**—also called intestine and colon. 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 colon (large bowel).

**conduit**—a channel or passageway.

**divert**—take a new route or direction.

**electrocardiogram (ECG)**—a test to check the heart action.

**ileal conduit**—an ileal conduit is a surgically created pathway from a piece of bowel to divert urine from its normal route.

**irritation**—skin that is red, sore, moist or has a rash; may be caused by antibiotics, urine on the skin or a reaction to a component in your pouching system.

**laxative**—medication used to stimulate the bowels to move.

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

**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 urostomy.

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

**stoma**—the part of the bowel seen outside of the body on the abdomen following ostomy surgery.

**umbilicus**—more known as the navel or belly button.

**urologist**—a surgeon who specializes in the medical and surgical care of people who have urinary system problems.

**urostomy**—refer to ileal conduit above.

## RESOURCE LIST

**Bladder Cancer Canada**

<https://bladdercancer canada.org>

**Canadian Cancer Society**

<https://www.cancer.ca>

**International Association for Medical Assistance to Travelers**

<https://www.iamat.org>

**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>

## REFERENCES

- Ayaz, S. Approach to sexual problems of patients with a stoma by PLISSIT model: an alternative. *Sex Disabil.* 2009;27:71-81. <https://doi.org/10.1007/s11195-009-9113-4>
- Canada's Food Guide. [webpage] Government of Canada. n.d. Accessed 2021-09-08. <https://food-guide.canada.ca/en/>
- Carmel JE, Colwell JC, Goldberg MT. Wound, Ostomy and Continence Nurses Society (2021): Core Curriculum. *Ostomy Management*. 2nd. Ed. Lippincott Williams & Wilkins. 2021 <https://www.wolterskluwer.com/en/solutions/ovid/wound-ostomy-and-continence-nurses-society-core-curriculum-ostomy-management-13665>
- Parastomal care Nurses Specialized in Wound, Ostomy and Continence Nurse Canada. n.d. <https://nswoc.ca/parastomal-care/>
- Preventing a peristomal hernia [webpage] <https://www.dansac.com/en-GB/LivingWithAStoma/RecoveryAfterStomaSurgery/PreventingAPeristomalHernia>
- Reducing risk of parastomal hernia [webpage] Convatec n.d. <https://meplus.convatec.com/articles/reducing-risk-of-parastomal-hernia/>
- Registered Nurses' Association of Ontario. Supporting adults who anticipate or live with an ostomy. Best practice guidelines. Registered Nurses' Association of Ontario. 2019. [https://rnao.ca/sites/rnao-ca/files/Ostomy\\_Care\\_\\_Management.pdf](https://rnao.ca/sites/rnao-ca/files/Ostomy_Care__Management.pdf)
- Sex, intimacy and cancer [webpage] Canadian Cancer Society. 2018. <https://cancer.ca/en/cancer-information/resources/publications/sex-intimacy-and-cancer>
- Thompson MJ. Parastomal hernia: incidence, prevention and treatment strategies. *Br J Nurs.* 2008 Jan 24;17(Sup1):S16-20. <https://doi.org/10.12968/bjon.2008.17.Sup1.28145>
- Urinary diversions in Canada position statement: collaboration of Canadian Urological Association, Nurses Specialized in Wound, Ostomy and Continence Canada & Urology Nurses of Canada
- Wound, Ostomy and Continence Nurses Society: Discharge planning for a patient with a new ostomy. 2014. [https://cdn.ymaws.com/member.wocn.org/resource/resmgr/document\\_library/Discharge\\_Planning\\_Pt\\_New\\_Os.pdf](https://cdn.ymaws.com/member.wocn.org/resource/resmgr/document_library/Discharge_Planning_Pt_New_Os.pdf)
- Wound, Ostomy and Continence Nurses Society: Basic ostomy skin care: a guide for patients and health care. Wound, Ostomy and Continence Nurses Society. 2018. [https://cdn.ymaws.com/member.wocn.org/resource/resmgr/document\\_library/Basic\\_Ostomy\\_Skin\\_Care.pdf](https://cdn.ymaws.com/member.wocn.org/resource/resmgr/document_library/Basic_Ostomy_Skin_Care.pdf)



NURSES SPECIALIZED IN  
WOUND, OSTOMY AND CONTINENCE  
CANADA

INFIRMIÈRES SPÉCIALISÉES EN  
PLAIES, STOMIES ET CONTINENCE  
CANADA

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

<https://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  
EDITED BY DEBRA JOHNSTON & NANCY PARSLow.  
PRODUCED BY JOHN GREGORY, OPENCITY INC.  
© 2022 NSWOCC