Understanding Your Surgery

Certain kinds of cancer, injury or other conditions can affect the function of your urinary tract. If your bladder or other parts of your urinary tract no longer work correctly, your surgeon may need to create a new way for you to pass urine. One way is with a urinary conduit. The word conduit means “passageway.”

Your surgeon uses a small piece of your intestine to make the urinary conduit and connects it to the tubes, called ureters, which carry urine from your kidneys. The surgeon brings one end of the conduit to your abdomen wall and creates an opening called a stoma. Your urine will flow through the conduit and stoma and drain into a pouching system that you wear on your abdomen.

This information can help you learn what typically happens during surgery. It talks about how to get ready for surgery and how to care for yourself after surgery. It also tells you how to manage your urinary conduit when you return home.

To benefit most from your surgery, carefully follow all instructions your health care team gives you. If you have questions after you read this material, please talk with your surgeon or another member of your health care team.

Your health care team

The health care team that takes care of you before surgery and while you are in the hospital includes physicians, physician assistants, nurses, nurse practitioners and dietitians. You are a key member of the team as well. It is important for you to take an active part in your health care.

Another key person on the team is your wound, ostomy and continence (WOC) nurse. Your WOC nurse has special training to help people who have a urinary conduit. He or she teaches you how to care for your urinary conduit and can answer questions you and your family may have about the conduit and needed supplies before, during and after your hospital stay.
Your urinary tract

To understand this surgery, it helps to know about your urinary tract and how it works. Figure 1 shows the urinary tract.

![Figure 1. Urinary tract]

Most people are born with two kidneys, one on each side of their upper abdomen. Your kidneys filter fluid and waste from your blood and make urine.

Your kidneys make urine all the time. Normally, urine flows from your kidneys to your bladder through two tubes called ureters. Your bladder is a hollow muscular organ that stores urine. When your bladder is full, the urinary sphincter muscles relax. Then urine can pass from your body through a tube called the urethra.
Urinary Conduit Surgery

Getting ready for surgery

You may need to do some things to get ready for your surgery. You will get instructions when you schedule your surgery. **It is very important to follow these instructions.** If you do not follow them, your surgery may need to be set up for another time. If you have questions about how to prepare for surgery, call your health care provider.

Before your surgery, talk with your health care provider about your use of medicines, caffeine, alcohol, tobacco or other drugs. Your use of any of these products before or after surgery may affect your healing and recovery.

Before surgery, a member of your health care team marks your abdomen to show where your stoma may be. Factors that affect the choice of the stoma site include your natural skin folds, scars, and the location of your navel, waistline and hip bones. It also depends on your abdomen muscles and whether you can see the site when you sit. Choosing the proper location makes it easier to care for the stoma and helps the pouching system fit well.

What typically happens during surgery

Before surgery begins, you are given anesthesia. This is medicine that keeps you asleep during surgery. Once you are asleep, your surgeon makes an incision in your abdomen that starts just below your belly button. See Figure 2.

![Figure 2. Surgical incision](image-url)
If your surgeon removes your bladder, he or she may need to remove other organs as well. For example, if your surgery is for cancer, nearby lymph nodes usually are taken out. If you are a man, the surgeon likely will remove your prostate during this surgery. If you are a woman, the surgeon may need to take out your ovaries, fallopian tubes, uterus, cervix and part of your vagina.

Next, the surgeon uses a small piece of your intestine to make the urinary conduit. Usually the piece comes from the last part of your small intestine, called the ileum. However, sometimes it comes from your large intestine, also called the colon. See Figure 3. The surgeon reconnects the rest of your intestine so you can still have bowel movements as you normally do.
Then your surgeon connects your ureters to the urinary conduit. See Figure 4. He or she closes one end of the conduit and brings the other end to your abdomen wall to create an opening called a stoma. Then your urine will flow from your kidneys through your ureters and the urinary conduit. It will drain from the stoma into a pouching system that you wear on your abdomen. The pouch stores your urine until you can empty it.

![Figure 4. Urinary conduit](image)

**Common side effects and complications of surgery**

**Side effects**

You may have some pain or discomfort around your incision for a few weeks after surgery. As you recover, you should slowly have less pain. Before you leave the hospital, talk with your health care provider about medicine and other ways to improve your comfort.

You may have side effects from anesthesia, such as sore throat, shivering, sleepiness, dry mouth, nausea and vomiting. These may last for a few days.

You may have drainage from your urethra for six to eight weeks after surgery. The drainage slowly changes from bright red to pink, brown and then yellow.

**Complications**

All surgery has potential complications, including bleeding, infection, blood clots, pneumonia and risks of anesthesia. Urinary conduit surgery has its own possible complications, including dehydration, urinary tract infection, bowel obstruction and ureter blockage. Please talk with your health care provider and surgeon about the potential complications of your surgery.
Managing Your Urinary Conduit

In the hospital

While you are in the hospital you may get fluids, medicine and nutrition through a tube placed into one of your veins. The tube is called an intravenous, or IV, line. When you can eat and drink by mouth, you start with liquids. Slowly, you move on to soft foods and then to your normal diet as you feel able.

You may have one or two wound drains to take extra fluid away from your surgery site. The drains may still be in place when you leave the hospital. They are taken out when you have less drainage.

You may have thin tubes called stents in your ureters to drain urine while you heal. The stents come out through your stoma. See Figure 5. Your surgeon will decide when to take out the stents.

You may go home with the stents still in place. If so, the stents often fall out on their own. This is normal. It means your stitches have dissolved and the stents were ready to come out. As the stents begin to slide out of the stoma, they may become very long. Do not trim them unless you are told to do so.

You may be asked to walk often, starting the morning after your surgery. Walking promotes healing and return of bowel function, improves your circulation and helps to prevent joint stiffness and blood clots. Continue to walk when you return home as your surgeon instructs.

Figure 5. Urinary conduit with stents
Your stoma

The stoma is the opening of the urinary conduit you see on your abdomen. See Figure 6. At first, your stoma will be red, swollen and moist. During the first six to eight weeks after surgery, the swelling should slowly lessen and the stoma may become smaller. However, it will stay red and moist.

Check your stoma and the skin around it each time you change your pouching system. The surface and edges of your stoma may bleed a little when you clean your stoma. This is normal. The bleeding usually stops on its own.

You may see the stitches around your stoma. You may find pieces of the stitches when you clean your stoma and the skin around it. This is normal. The stitches go away as your body heals.

The stoma has no nerve endings. Any discomfort you may feel is from the skin around the stoma. Call your WOC nurse if you have questions or concerns about your stoma or skin.

![Figure 6. Urinary conduit stoma](image)
**Pouching system**

Since a urinary conduit does not store urine, you must wear a pouching system at all times to collect your urine. There are different kinds of pouching systems. Figure 7 shows an example. Your WOC nurse helps you decide what kind is best for you. All the systems are made to hold in odor. Follow the use and care instructions you are given. Change your pouching system as often as your health care provider tells you to.

![Figure 7. Pouching system](image)

While you are in the hospital, your health care team shows you how to empty and change your pouching system. Time and practice will help you get better at doing this. It is important to have a family member or friend come to your learning sessions so he or she can support you at home.

Pouching systems have a skin barrier wafer that protects the skin around your stoma. A pouch attached to the wafer collects your urine. To keep urine off your skin, the opening in the wafer should fit closely around the edge of your stoma. Over time, your skin will break down if urine stays on it. If the wafer lifts off your skin, you must change it to protect your skin.

A member of your health care team will show you how to empty your pouching system while you sit on or stand in front of a toilet. Empty the pouch when it is about one-third full, about five to six times a day. This is about how often most adults normally urinate. Emptying the pouch system when it is one-third full helps to keep it from showing under your clothes. It also helps prevent extra weight in the pouch. Extra weight may loosen the seal on your pouching system and let urine leak.

You can expect to see mucus in your urine. The piece of intestine used for your urinary conduit will still make mucus like your intestines normally do. Over time you should have less mucus in your urine, but it will never go away completely. If you have stents in place, mucus may collect around them and your stoma. This should not block the flow of urine.
Cleaning your skin

Clean the skin around your stoma when you change your pouching system. Use warm water and a soft cloth to clean the skin fully.

Unless you are told otherwise, you do not need to use soap. If you choose to use soap, wash it all off before you put on your pouching system. Make sure the skin around the stoma is clean and dry before you put your pouching system back on. Otherwise, the wafer may not stick well to your skin.

Odor control

Odor, or smell, also is a common concern for people with urinary conduits. The pouching system is made to hold in odor. But there will be some odor when you empty it. Some foods and some medicines may cause a stronger odor. See “Medicine.”

Night drainage system

At bedtime, connect your pouching system to a night urinary drainage system. This system helps urine flow away from your pouch. If you wear only your regular pouching system to bed, the weight of the urine that collects in the pouch during the night may loosen the seal on the wafer. In addition, more bacteria may grow as urine collects in the pouch at night. The bacteria may cause a urinary tract infection.

Each box of pouches comes with an adapter to connect your pouch to the night drainage system. Leave a small amount of urine in the pouch before you connect it to the system. This helps to start the flow of urine through the drainage tube.

Hang the drainage bag on the side or foot of your bed or on a low chair rung, or place the bag in a small wastebasket. Secure the tube to your leg with a strap or hook and loop fastener or bring it down through your pajama leg. This helps to keep the tube from twisting, which may block the flow of urine. Wind any extra tubing on the bed instead of on the floor.

You may sleep on your side or back. Urine will not flow from the stoma into the pouch if you sleep on your stomach.

Clean the night drainage bag after each use. To do this, empty the bag, rinse it with cool water and let it dry. Use a deodorant cleanser if you wish. Follow the instructions that come with the product. Note: If you notice an odor, you may rinse the drainage bag with a solution of 1 cup white vinegar mixed with 2 cups cool water.

Replace your night drainage bag one or two times a month as you are told. Also replace it any time after you take antibiotics for a urinary tract infection.
After You Leave the Hospital

The material in this section gives you general guidelines to help you heal and to lessen your risk of side effects and complications. Follow these guidelines unless you are told to do something else. **In particular, be sure to follow the instructions you are given before you leave the hospital.**

If you need help with your care at home, ask your WOC nurse about home nursing care in your community. In time, you may find that you no longer need home nursing care.

**Activity restrictions**

You may feel tired for six to eight weeks after surgery. As you heal, however, your strength and energy level should increase.

Return to your usual activities slowly. Unless you are told something else, follow these guidelines:

- **Lifting.** For six weeks after surgery, **do not** lift, push or pull anything that weighs more than 10 pounds (about the weight of a gallon of milk).
- **Driving.** Do not drive until your surgeon says you may and you feel comfortable doing so. **Do not drive while taking narcotic pain medicine.** This kind of medicine can affect your reaction time, judgment and vision.
- **Returning to work and school.** Ask your surgeon when you may return to work or school.

**Bathing and swimming**

If you have stents in place, keep your pouching system on when you shower, bathe or swim. If you do not have stents in place, you may shower with or without your pouching system on. You do not need to cover the pouching system or the stoma when you shower. Do not let the full force of the shower spray right on your stoma or pouching system. This helps to protect the stoma and keep the pouching system from becoming loose.

Ask your health care provider when you may start to take tub baths. If you take a tub bath for 10 minutes or less, your pouching system usually will not loosen. If you take long, hot baths, the system may loosen and need to be changed more often. To help stop this from happening, keep the water level below the wafer barrier. You also may place waterproof tape so it looks like a picture frame around the outer edges of the pouching system. This may help to keep the wafer in place.

Soap will not harm your stoma. However, be sure to rinse off any soap film from the skin around your stoma. **Do not** use bath oil or soaps with a lot of oil or lanolin. If you use these products, the adhesive seal may not stick to your skin.

You may swim with a urinary conduit. Swimsuits with a pattern or design in the fabric may hide the pouching system better. To help you feel more at ease about swimming, sit in a bathtub of water while you wear a swimsuit over your pouching system.

You may want to shower or bathe at a time of day when the stoma is less active, such as first thing in the morning. Dry the tape and pouching system well after you bathe, shower or swim. You may want to do this with a hair dryer on a cool setting.
Clothing

Usually you can wear your regular clothes after surgery. However, you may need to make some changes based on where your stoma is. Do not wear tight items, such as a belt or a tight waistband, over your stoma or pouching system. Tight items can keep urine from flowing into the pouching system. They may lessen how much urine the pouch holds and cause it to leak.

Diet and fluids

Good nutrition is important for your health and healing. A well-balanced diet includes foods in the vegetable, fruit, grain, protein and dairy groups. It is also low in sodium and fat.

You may be less hungry than usual for several weeks after surgery. To get the nutrients you need, try eating smaller meals more often. Ask your health care provider about nutrition drinks that can help you get enough calories, protein and other nutrients.

If you were on a special diet before your surgery, such as for diabetes or high blood pressure, do not change your diet after surgery unless your health care provider tells you to.

It is very important to get enough fluid after your surgery. Unless you are told something else, drink eight to ten 8-ounce glasses of fluid a day. This helps prevent you from having too little fluid in your body, which is called dehydration. See “Dehydration.”

Medicine

Some medicines can change the color of your urine. If you notice this, ask your health care provider or pharmacist whether it may be due to a medicine you take.

If you have an infection in your urinary tract or other part of your body, your health care provider may prescribe antibiotic medicine. This kind of medicine can change the normal bacteria in your body, which may cause a rash or redness around your stoma. If this happens, your health care provider may prescribe other medicine for you.

Some antibiotics may make your urine smell musty or moldy. The smell may be stronger with higher doses and longer times of treatment. The smell should go away slowly once you finish taking the medicine.

If you take a diuretic, you may need to empty or change your pouch more often. Change your pouch before you take the medicine. This helps lessen the amount of urine that flows from the stoma while you are changing the pouch.

Relationships

You may have some concerns about your personal relationships. It takes time to recover from major surgery and to adjust to a urinary conduit. Time can help you feel more at ease about taking care of the conduit. As you get more confident, you can enjoy the people and social activities you have always enjoyed.
Sexual activity

In the weeks after surgery, you may have less desire for sexual activity. **Do not** have sexual intercourse until your surgeon says you may. During this time, you can be intimate by talking, hugging and being close to your partner.

Do not think that your partner will no longer care for you sexually because of your surgery. Be patient. Share your feelings with each other. It is normal to be nervous about sexual activity.

Some sexual positions may be more comfortable than others. It helps to know and assure your partner that intimacy will not hurt your stoma.

These tips may help before intimacy:
- Make sure your pouching system is empty and secure.
- Tuck the pouching system into a belt or cummerbund.
- Wear clothes that help you feel attractive.
- Wear a pouching system that you cannot see through.

Female sexual changes

A urinary conduit usually does not affect your sexual function. However, if you have more surgery in your pelvic area, the angle, shape or length of your vagina may change and you may have vaginal dryness. This may cause discomfort during intercourse or problems with orgasm. Try a different position or use a water-soluble vaginal lubricant. Gentleness and patience also may help ease discomfort.

Male sexual changes

Urinary conduit surgery may affect your ability to have or maintain an erection. This may get better with time. If it does not, talk with your health care provider about ways to treat the problem.

If you have concerns about sexual activity or sexual function, talk with your health care provider or your WOC nurse. Concerns and questions are normal. There are resources that can help you.

Travel

Your urinary conduit should not keep you from traveling. When you travel, take enough supplies with you. Take along your supply prescription. Have with you a list of places you can buy supplies on your trip. Do not leave supplies in a hot or cold car. Very hot or very cold temperatures can affect the skin barrier wafers.

Be sure to wear a seat belt when you are in a motor vehicle or plane. If you travel by plane, take supplies in a bag that you can carry onto the plane. Empty your pouching system before you get on the plane.
Helpful tips

You may have questions as you learn to care for your urinary conduit. It takes time, practice and patience to learn anything new. These tips may help you manage your urinary conduit:

- Empty your pouching system when it is one-third full.
- Spread toilet paper over the water in the toilet. This helps prevent splashing when you empty your pouching system.
- Change your pouching system in the morning before you drink any fluids.
- Do not apply products that contain oil to the skin around your stoma or add them to your bath water. They may keep the pouching system from sticking to your skin.
- Use a makeup mirror on a stand or a full-length mirror when you check your stoma and put on your pouching system.
- Hold a piece of gauze on the stoma to soak up urine while you clean your skin and change your pouching system.
- Stand when you put on your pouching system to keep the skin around your stoma from wrinkling.
- Always carry an extra pouching system in case of an emergency.
- Measure your stoma from time to time. If the opening of the pouching system is larger than the stoma, urine may stay on your skin and irritate it. If the opening is smaller than the stoma, the pouching system may leak.
- If the skin barrier wafer lifts off your skin, replace it with a new wafer. The loosened wafer will not stick to your skin.

Urinary tract tests and other medical tests

When you have a urine test or other medical test, tell the person who schedules the test that you have a urinary conduit. You may need to prepare for the test in a different way than other people do. Also tell the person who does the test that you have a urinary conduit. You may need to take off your pouching system for some tests. Bring an extra pouching system with you to the test.

A urine sample should not be taken from your pouch because it will not be sterile. Instead, a health care provider should take urine samples by draining urine right from your stoma.
Possible problems

Urinary tract infection

Normally urine contains no bacteria. However, your urinary conduit is made from intestine, which always contains bacteria. Therefore, your urine always will have bacteria in it.

Any time you have a urine test, your test results will show that you have bacteria in your urine. While this is normally a common sign of a urinary tract infection, you may not need treatment unless you have other signs or symptoms, such as:

- A temperature of 100.4 degrees Fahrenheit (38 degrees Celsius) or higher.
- Bloody urine.
- Urine that is cloudy or has a foul smell.
- Increase in the amount of mucus in your urine.
- Low back pain.
- Body aches or feeling tired most of the time.

Call your health care provider if you have any of these signs or symptoms.

To help prevent a urinary tract infection:

- **Get enough fluid.** Drink eight to ten 8-ounce glasses of water or other liquid that does not contain caffeine each day.
- **Keep urine from collecting around your stoma.** Empty your pouching system when it is one-third full. Use a night drainage system.
- **Practice good hygiene habits.** Wash your hands well with soap and water before you work with your stoma, your pouching system or other urinary conduit items. Change your pouching system as often as your health care provider tells you to. Rinse your night urinary drainage system after each use.
**Dehydration**

Dehydration can happen when you take in less fluid than you put out in your urine or sweat. Urine is normally pale yellow, looks clear and has little or no smell. If you become dehydrated, your urine will look darker and have a strong smell.

You may be dehydrated if you:

- Pass less urine than you usually do.
- Pass urine that has a dark color or strong odor.
- Have more mucus in your urine than you usually do.
- Feel thirsty, weak or tired.
- Have a dry mouth and skin.
- Have abdominal cramps.
- Feel light-headed when you sit or stand.

If you have any of these signs, drink more fluid than usual. If the signs last for more than 12 hours, contact your health care provider.

**Follow-up care**

Have a follow-up visit with your WOC nurse during the first four to six weeks after you go home. As you heal from surgery and go back to normal activity, certain changes may affect the fit of your pouching system. For example, your body shape or weight may change. Your stoma size also may change. The WOC nurse can show you how to adjust your pouching system for these changes.

Have regular visits with your WOC nurse even after these early changes. The nurse can talk with you about skin care, the newest supplies and any concerns you may have.

**Buying your supplies**

You can buy urinary conduit and skin care supplies atostomy supply centers, medical supply stores, some pharmacies and through mail-order companies. Check with your insurance company to find out what supplies your plan covers and how to have your costs paid. Also ask whether you should use a certain supplier.

**Contacting your health care provider**

If you have questions after you read this information, contact your surgeon, your WOC nurse or another member of your health care team.