Patient Education

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Continent Urinary Diversion
General Urology Clinic

This guide will teach you about caring for a continent urinary diversion. This guide supports your doctor's advice, but should not replace instructions from your doctor or nurse.

Background

To understand a urinary diversion, it is helpful to be familiar with a normal urinary system. The urinary system consists of 4 major parts: 2 kidneys, 2 ureters, the bladder and the urethra. (See Figure 1)

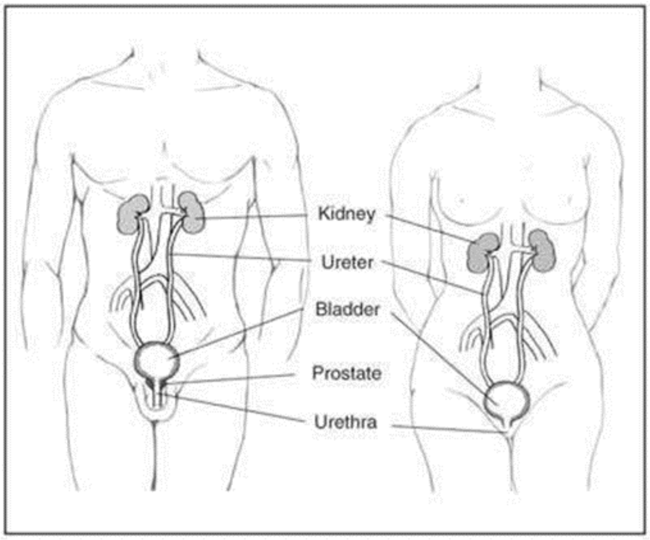

Figure 1
Urinary System

The kidneys filter blood and produce urine, which flows down the ureters into the bladder. The bladder stores and empties urine. When you are ready to pass urine, the sphincter muscles around your urethra relax, and the bladder muscles push the urine out through the urethra. This is like releasing air from a balloon. When the bladder is diseased or no longer works properly, another method of passing urine out of the body is needed. In some cases, doctors surgically reroute urine from the ureters directly to an opening on the abdomen called a stoma. This surgery creates a urostomy ("uro" refers to the urinary system; "ostomy" means creation of a passage). The person then wears a pouch over the stoma to collect urine. This surgery is very effective, but the person must adapt to wearing a pouch and will lack control over passing urine.

What is a continent urinary diversion?

Continence means that a person has control over the release of urine. A continent urinary diversion allows the person to pass urine without wearing an ostomy pouch.

A surgeon creates a holding area (pouch) inside the body to store the urine. This pouch is a substitute for your bladder and prevents urine from leaking out of the body. The surgeon creates the pouch from part of the intestine (bowel) and then creates an exit for the urine from the pouch. Your doctor will explain 2 surgery options to you, either a Studer pouch or an Indiana pouch.

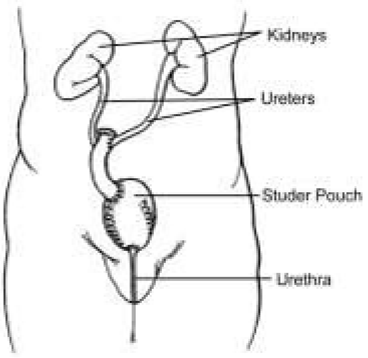

Figure 2
Studer Pouch

Studer Pouch

This surgery connects the reservoir to your urethra. This allows you to pass urine as you did before surgery. This new “bladder” is called a Studer pouch, also called a Neobladder (See Figure 2).

If you have a Studer pouch, you will urinate to empty it. You will learn Kegel exercises to strengthen the muscles located in the bottom of your pelvic area. To prevent wetness and to control the passing of urine, you must practice these exercises every day. For instructions, ask for the handout “Kegel Exercises.”

Until these muscles become strong, wetness can occur. To prevent accidents, you may want to use absorbent pads or garments. This wetness most often occurs during sleep when all of the muscles are relaxed.

Indiana Pouch

In this surgery, the pouch will connect to the lower abdomen using a piece of intestine (bowel) to make a stoma. (See Figure 3).

Usually, the stoma for the pouch is nearly invisible because it is small. It is usually located on the right side of your abdomen, near your navel. It is small, deep pink to red in color, and remains moist — like the inside of the mouth. You will empty this pouch by passing a catheter (tube) through the stoma into the pouch. Passing a catheter does not hurt. It is quick and easy to do, and will become natural for you to do.

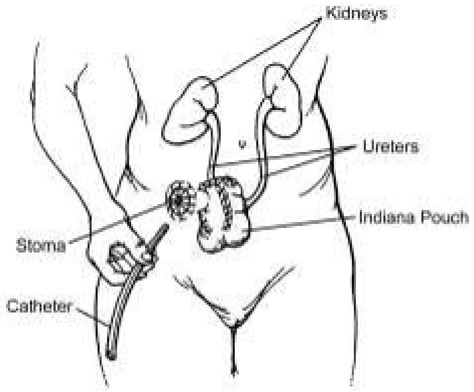

Figure 3
Indiana Pouch

How will this affect my life?

Once you have recovered from surgery, you may be surprised at how little your life changes. In fact, if you have this surgery because of a disease or because of bladder problems, you may feel more relaxed and relieved. You will have a different daily routine. You can expect the following:

The stoma of the Indiana pouch is moist and may secrete a little mucus. To protect your underwear, you can cover the stoma by taping a piece of a minipad or pantiliner over it or you can cover it with a Band-Aid.

Clothing

You may wear the same clothing as you wore before surgery, although immediately after surgery you will want to wear loose fitting clothes. Before surgery you will meet with Ostomy Nurses who will examine your abdomen and will talk to you about where the stoma, if you have one, will be. To prevent irritation of the stoma, avoid wearing tight clothes directly on top of the stoma. If you have a Studer pouch, you may need to wear a pad in your underwear until you have more control of the pouch.

Bathing

After going home from the hospital, you should continue to shower until all staples, stents, tubes, are removed. Once they are removed, likely at 2-3 weeks, you may bathe and otherwise soak in a body of water. Your physician will discuss this with you. Take the covering off your stoma before bathing because air and water will help it heal. Soap and water will not hurt the stoma. Like the gums in your mouth occasionally bleed when you brush your teeth, your stoma may bleed a little when it is washed.

Diet

You may eat the same diet as before surgery. Eating asparagus causes urine to smell bad for several hours. If you don't mind the smell, it's okay to eat it. You should drink 8-10 (8-ounce size) glasses of fluid every day. This helps to keep the kidneys flushed and dilutes any mucus, which might collect in the pouch. Drink a variety of fluids every day, especially water.

Daily Activity

To prevent muscle strain that may cause a hernia, do not lift objects weighing more than 5 pounds for 4-6 weeks after you return home. Do not drive a car until all of your tubes are out and until you have no discomfort in your abdomen. Ask your surgeon when you can resume driving. After this time, you may participate in the same activities you did before surgery except for rough sports (such as football), which may cause pain in your abdomen.

Begin by walking for 10 minutes 3 times a day to build your strength. Increase your walking time every day. Climbing steps is okay. If you have a Studer pouch, you must do Kegel exercises every day.

You should wear a medical alert bracelet or necklace at all times. This device will alert emergency medical staff about the pouch because they must drain it with a catheter if you cannot do it yourself. Because your stoma can look like other stomas that drain by themselves, it is safer to wear this device and to tell doctors and nurses about it. Speak with your nurse or pharmacist for more information on how to order a medical alert device.

Travel is fine once your doctor gives you permission and your strength returns. Carry extra supplies with you. Keep them with you—not in your suitcase—when you travel by plane.

Sexual Activity

Your doctor will tell you when you may resume sexual intercourse. Hugging and other loving gestures are good for your physical and mental health.

Every time before you have intercourse, empty your pouch first. Some women may have problems with tightness in the vagina, and some men may have erection problems. If you feel you have problems after 2-3 months, talk with your doctor or nurse about treatment for these problems. Let your partner know that sexual activity is not harmful or painful to the stoma.

Irrigation Instructions

Irrigation is a procedure used to wash out the inside of the pouch. You will flush the pouch with saline (salt water) to remove the mucus so urine will drain freely through the catheter. This flush keeps the catheter clear and free of clogs. As the pouch is healing, you may need to irrigate as often as 3 times a day, beginning right after the surgery. Eventually, you will irrigate only once a day. (The Studer pouch usually does not need irrigation after the catheter is removed from the reservoir.)

Your nurse will give you a specific irrigation schedule. Before you leave the hospital, you will learn how to irrigate and how to care for the supplies. If you have a partner at home or someone to help you, it is important that they participate in this care while you are in the hospital. This will help you feel comfortable when you return home. You will receive supplies before you leave the hospital. Many patients also have a visiting nurse for a temporary amount of time and he/she can assist you with irrigation.

Supplies:

2 catheter-tipped syringes
Plastic container to hold the saline Bottle of saline (water and salt solution) Basin

Procedure:

1. Wash your hands.
2. Pour saline into the container.
3. Draw 50-60cc of saline into both syringes.
4. Attach one syringe to the catheter and gently push the saline into the reservoir.
5. Draw the saline out of the reservoir with the syringe. (Do this only if you have a Studer pouch). You may notice that you need to fill your reservoir with two syringes (120cc) before being able to draw back. Your inpatient team will discuss this with you so you are aware of how much you should flush with.
6. Repeat the irrigation process until the solution withdrawn is free of all but small bits of mucus. If some “plugs” (not “strings”) of mucus are pulled out, use a second syringe of saline to flush again.
7. If you have trouble getting the saline out, try these tips: With a syringe half full of saline, use a piston-like motion to loosen and remove a mucus plug.
8. Wash your hands and the supplies, dry them, and store them in a clean place to use again.
9. If you see a lot of mucus, you should repeat the flushing until the saline is almost clear.

When You Go Home

You will know how to take care of the catheter and the incision on your abdomen. You will also know how to manage the catheter(s) and how to irrigate the reservoir. Your WOC nurse will give you information about where you can purchase supplies for long-term use.

Call Your Doctor If:

- Little or no urine drains through the catheter, and irrigation does not open the flow of urine.
- There is unusual drainage from any site.
- You have a fever higher than 101°F or 38.3°C.
- You are vomiting.
- You feel unusual pain in your abdomen or kidney areas.
- You see blood in your urine.
- The skin around the stoma is irritated, or if the stoma is bleeding. (e.g., more than the expected flecks of blood on a washcloth).
- Your urine is foul smelling and/or cloudy (not only pieces of mucus).

Care After Removing the Catheter

Instructions for Studer Pouch

Once the catheter is out, you must follow a schedule for emptying the Studer pouch for 4-6 weeks. The pouch is not used to holding urine so it will not hold very much. It will stretch out over time. Until then, you will need to pass urine on a timed schedule. After a few months, you will feel when the pouch is full.

To stretch the Studer pouch and to keep dry between passing urine, practice the Kegel exercises. It is very important to pass urine according to the schedule below.

Week	**Day**	**Night**
1	Empty every 2 hours	Empty every 3 hours
2	Empty every 3 hours	Empty every 4 hours
3	Empty every 4 hours	Empty every 5 hours
4	According to sensation	According to sensation

Most people cannot wait more than 4 hours to empty their pouch. This schedule is a guide. If you feel that the pouch is full, empty it sooner. However, you should not wait longer than scheduled to empty the pouch or you might wet yourself. This is especially the case before making the pelvic muscles stronger with Kegel exercises.

Instructions for Indiana Pouch

Catheterization is a process to drain the pouch with a catheter (tube). Your nurses will teach you how to catheterize, and will give you a specific schedule to follow. At first, the pouch cannot hold much urine. Do not overstretch the pouch. It will slowly stretch by following the catheterization schedule.

In the beginning, you will catheterize frequently. Week-by-week, the pouch will hold more urine. Eventually, it will hold as much as your bladder did. At this point, only catheterize every 4-5 hours and during the day.

By this time, you will recognize a feeling or sensation in the abdomen as a signal that the pouch is full. Always catheterize when you wake up in the morning and before going to bed — no matter what the schedule says.

Catheterization Schedule

Week	Day	Night
1	Empty every 2 hours	Empty every 3 hours
2	Empty every 3 hours	Empty every 4 hours
3	Empty every 4 hours	Empty every 5 hours
4	According to sensation	According to sensation

Catheterization Procedure

Gather your supplies:

- Catheter, 16 or 18 French size (some people prefer a curved tipped catheter, called a Coude tip catheter).
- Water-soluble lubricant (optional). **Do not** use Vaseline® or other petroleum jelly.
- Container to measure urine (if your doctor wants it measured).

1. Wash your hands.
2. Get comfortable. You may want to sit on the toilet, sit on a chair facing the toilet, or stand.
3. Optional: lubricate the tip of the catheter with a water-soluble lubricant.
4. Gently insert the catheter until urine begins to flow. You may need to twist the catheter as it passes through some tight areas before urine begins to flow.
5. The catheter may be plugged with mucus if it does not drain. Irrigate the catheter, or remove it and run warm water through it to remove mucus plugs. Then put it back into the pouch.
6. When the urine flow stops, push the catheter in and out a couple of inches, and twist it around to drain any pockets of urine. You will soon learn how to twist and turn the catheter to help drain the pouch.
7. When the pouch is empty, pinch the catheter and remove it slowly. Pinching the catheter will keep urine from draining back into the pouch or onto your hands. Once you are comfortable with the routine, this process will only take a few minutes.
8. Wash your hands and the catheter with liquid soap and warm water. Do not use antibacterial soap

Dry your hands and the catheter on a paper towel; shake excess water from inside the catheter. Store the catheter in a clean place, such as rolled up and wrapped in a paper towel.

Helpful Hints

- If you have trouble inserting the catheter, try the following:
  - **Relax**, take some deep breaths and try again.
  - Change positions: stand up if you were sitting; put a leg on the toilet seat; sit down if you were standing; or lie down.
  - Use a smaller catheter.
  - Insert the catheter while you are in the shower.
  - Get someone else to insert the catheter for you.
- If you have tried everything and still cannot insert the catheter, call your doctor or your nurse for help.
- Carry a catheter with you at all times.
- You might want to keep a catheter at work, in the car, etc.
- Replace your catheter if it develops rough areas that could scratch the stoma, is too stiff, too soft or it is worn.

Emergency Center

In case of any emergency, call 911 or go to the nearest emergency center. *For non-emergencies during business hours, call our triage line at 904-202-7300 option 3.*

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