

Peritoneal Catheter Placement – For Patients

What is a Peritoneal Catheter?

A peritoneal catheter is a small plastic tube that is implanted under the skin to provide a painless way of withdrawing excess fluid from or delivering anti-cancer drugs into the abdominal or peritoneal cavity over a period of weeks, months or even years. The catheter has an external access and is designed to hang down into the abdominal cavity once it is placed inside the body.

The peritoneal catheter is implanted during a minimally invasive procedure so that patients may undergo treatments such as:

- serial paracentesis, in which excess fluids in the abdomen are repeatedly withdrawn through a catheter connected to the port.
- intraperitoneal therapy, in which anti-cancer drugs are delivered into the peritoneal cavity through a catheter connected to the port.
- Dialysis in certain patients with chronic renal failure.

What are some common uses of the procedure?

Physicians use peritoneal catheters for:

- Peritoneal Dialysis
- Intractable ascites, a condition in which excess fluid continually builds up in the abdominal, or peritoneal cavity. Ascites may be caused by cirrhosis (chronic liver disease), cancer, heart failure, kidney failure, tuberculosis or pancreatic disease.
- Ovarian cancer.
- Malignant Ascites/Intraperitoneal Administration of Chemotherapy

How should I prepare?

You may have blood drawn prior to your procedure.

Prior to your procedure, your blood may be tested to determine how well your liver and kidneys are functioning and whether your blood clots normally.

You should report to your doctor all medications that you are taking, including herbal supplements, and if you have any allergies, especially to local anesthetic medications, general anesthesia or to contrast materials (also known as "dye" or "x-ray dye"). Your physician may advise you to stop taking aspirin, nonsteroidal anti-inflammatory drugs (NSAIDs) or a blood thinner for a specified period of time before your procedure.

Also inform your doctor about recent illnesses or other medical conditions.

Women should always inform their physician and x-ray technologist if there is any possibility that they are pregnant. Many imaging tests are not performed during pregnancy so as not to expose the fetus to radiation. If an x-ray is necessary, precautions will be taken to minimize radiation exposure to the baby.

You will receive specific instructions on how to prepare, including any changes that need to be made to your regular medication schedule.

You may be instructed to not eat or drink anything for several hours before your procedure.

You may be asked to remove some or all of your clothes and to wear a gown during the exam. You may also be asked to remove jewelry, eye glasses and any metal objects or clothing that might interfere with the x-ray images.

You should plan to have a relative or friend drive you home after your procedure.

How is the procedure performed?

Image-guided, minimally invasive procedures such as the placement of peritoneal catheters are most often performed by a specially trained interventional radiologist in an interventional radiology suite or occasionally in the operating room.

This procedure is often done on an outpatient basis. However, some procedures may require admission. Please consult with your physician.

You may be given medications to help prevent nausea and pain, and antibiotics to help prevent infection.

You will be positioned on the examining table.

You will be connected to monitors that track your heart rate, blood pressure and pulse during the procedure.

A nurse or technologist will insert an intravenous (IV) line into a vein in your hand or arm so that sedative medication can be given intravenously. You may also receive general anesthesia.

If you receive a general anesthetic, you will be unconscious for the entire procedure, and you will be monitored by an anesthesiologist.

The area of your abdomen) where the catheter is to be inserted will be shaved, sterilized and covered with a surgical drape.

Your physician will numb the area with a local anesthetic.

A very small nick is made in the skin at the site.

The catheter is inserted through the skin and into the abdominal cavity. A few inches away, a second incision is made where the external portion is implanted through a tunnel under the skin.

A small, elevated area remains at the site of the port. The reservoir has a silicone covering that can be punctured with a special needle. Stitches, surgical glue or tape will be used to help keep the tunnel firmly in place.

An x-ray may be performed after the procedure to ensure the port is correctly positioned.

Your intravenous line will be removed.

Will I be put to sleep (under anesthesia) for the procedure?

Not usually. A sedative medication will be given to you to make you feel relaxed and it may also may you feel drowsy.

How long will the procedure last?

This procedure is usually completed within two hours.

What will I experience during and after the procedure?

- Devices to monitor your heart rate and blood pressure will be attached to your body.
- You will feel a slight pin prick when the needle is inserted into your vein for the intravenous line (IV) and when the local anesthetic is injected.
- If you receive a general anesthetic, you will be unconscious for the entire procedure, and you will be monitored by an anesthesiologist.
- If the case is done with sedation, the intravenous (IV) sedative will make you feel relaxed and sleepy. You may or may not remain awake, depending on how deeply you are sedated.
- You will have to lay flat for about 30 to 45 minutes during port placement.
- If you are not staying overnight at the hospital, you should rest at home for the remainder of the day following the procedure. You may resume your usual activities the next day, but should avoid lifting heavy objects.
- You will receive instructions on how to care for your incision(s) and your particular vascular access device. For the first week, it is especially important to keep the catheter site clean and dry. Some, but not all, physicians will recommend sponge bathing around the port site, then cleaning the area with peroxide, applying an anesthetic ointment that contains an antibiotic and bandaging the area.
- Incisions are held together by stitches, surgical glue and/or a special tape.
- Having the catheter in place should not restrict your activities. Once the incision heals, reasonable exercise is allowed and since the port is located under your skin, you may bathe or shower as usual.

You may continue with your normal diet.

You should inspect the skin around your catheter daily and call your doctor if you:

- Develop redness, swelling, drainage or tenderness around the catheter site
- Experience unusual abdominal pain
- Develop a fever.

You will remain in the recovery room until you are completely awake and ready to return home.

What are the benefits of having this procedure?

- The procedure is minimally invasive, requiring only small incisions.
- Placement of a peritoneal catheter is a great solution for those requiring prolonged treatment such as and dialysis at home, drainage of intractable ascites and intraperitoneal chemotherapy administration.

What are the risks of having this procedure?

- Any procedure where the skin is penetrated carries a risk of infection. The chance of infection requiring antibiotic treatment appears to be less than one in 1,000.
- Catheters require surgical insertion and removal if complications arise or when treatment ceases.
- An infection may develop at an incision site shortly after port placement. The risk is less if you carefully follow instructions about caring for the incisions as they heal.

Delayed Risks

Two types of delayed infection may develop: skin infection at the catheter or port insertion site or infection in the peritoneal cavity (peritonitis). The risk of delayed infection can be minimized if you and anyone else who will be handling the device wash hands before flushing it or cleaning the insertion site. The site should be carefully inspected each time the dressing is changed. The risk of infection is higher for individuals who have low white blood cell counts.

What are the instructions after the procedure?

Call your physician:

1. If you have a temperature of greater than 100.
2. If you notice redness, tenderness, heat, swelling at incision sites, or drainage on dressing.
3. If dressing becomes dirty or wet. Always remove the dressing immediately, clean the skin area with sterile swab or gauze saturated with betadine or its alternative (Chloroprep, Hibiclens) starting at the incision and going out in a circular gentle fashion to about 3-4 inches away from the site.
4. If your catheter or stitches comes out accidentally.
5. If you have pain at the incision site not relieved by medications.
6. If the abdomen remains distended or painful after or during drainage session, call your physician.

Do not remove your dressing(s) more often than once every 2 or 3 days a week unless it becomes wet, dirty or soiled. You will do this for the next two weeks until completely healed.

Remember:

1. Take only a sponge bath for the next two weeks. Do not take a tub bath or shower unless approved by your referring physician. No showering until well healed (about 10-14 days from the procedure date) and your physician gives you instructions to do so.
2. Do not lift anything heavier than 10 pounds until approved by your physician.
3. Do not push or pull heavy objects until approved by your referring physician.
4. No exertional activities for the next two weeks.

No straining during bowel movements. Do not get constipated. If a laxative is needed, we or your physician can recommend one. Usually we recommend lactulose 30 cc daily for the next two weeks. This is very important as straining may cause the catheter to come out.

REMEMBER TO ALWAYS WASH YOUR HANDS BEFORE CARING FOR YOUR CATHETER. If your preference is to glove your hands before handling the catheter, you still need to wash your gloved hands and dry thoroughly.

If there is an urgent concern or question, you can call the department liaison at 205-975-4850. When in doubt, go to the ER for evaluation.



Knowledge that will change your world

If I have other questions, who do I contact?

For further questions or concerns about the peritoneal port procedure, please contact Interventional Radiology at 205-934-0152, 205-934-7245, 205-975-4850.