

Caring for a Pleural Catheter

A guide for patients and their caregivers

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This guide will help you care for your pleural catheter. Your nurse will review this information with you before you leave the hospital.

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What is a pleural effusion?

A pleural effusion happens when too much fluid collects in the space between the outside of your lung and your ribs (chest wall). While it is normal to have a little bit of fluid, too much fluid makes it hard to breathe. It can also cause pain and make you cough.

A malignant pleural effusion happens when there are cancer cells in the fluid.

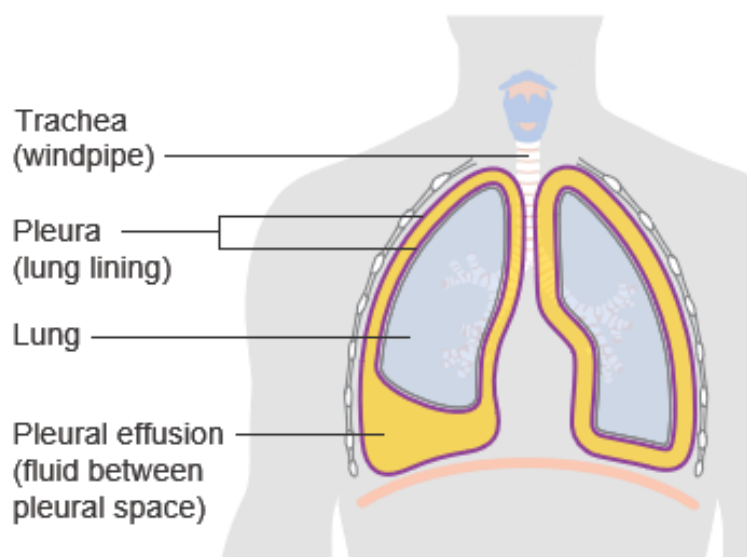


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Treating A Pleural Effusion

To remove the extra fluid in your chest, your doctor has put a silicone tube, called a pleural catheter, in the space within your chest where the fluid is collecting. One end stays in your chest while the other end comes out of the body.

You will be able to drain this fluid at home using the pleural catheter and a special bag. This will make it easier for you to breathe.



What happens when my pleural catheter is first put in?

Once the pleural catheter is placed in the chest, the nurse will then start to drain off the extra fluid in the chest through this catheter. No more than 1 liter (or 1000 milliliters (mL)) would be taken off at one time. The nurse will be monitoring you closely.

Once this procedure is done, the nurse will provide you with some basic care instructions before you / your family leave. The hospital team will arrange for the community nurse to visit you at home the next day for your drainage session.

Who helps me take care of my pleural catheter?

The nurses at the hospital will teach you how to take care of your pleural catheter on the day the doctor puts it in. The community nurses will help you take care of your pleural catheter at home. They will come to your home the day after it is inserted and on the days your dressings need to be changed. The community nurses will also review how to take care of your pleural catheter with you and your family.

A community nurse is a Registered Nurse who cares for people in their home instead of in a hospital. This service is paid for by the government. In most parts of Nova Scotia, the community nurse is employed by the VON (Victorian Order of Nurses).

Draining

When do I drain the fluid from my catheter?

How often you drain the fluid from your catheter depends on the amount of fluid drained the last time and your symptoms which are described below.

Fluid collected on the last drain	How often should I drain?
Between 300 mL and 1000 mL (1 litre)/day Never drain more than 1000 mL(1 litre/day)	Drain every day
Between 100 to 300 mL/day	Drain every other day
Less than 100 mL/day	Drain two times a week for the first two weeks. Then once a week.

You can also drain your catheter if you are having any of these symptoms:

- Increased shortness of breath
- Increasing chest fullness
- Increased discomfort

If you continue to have these symptoms after you have drained your catheter, call your doctor or cancer care team.

Important information about your drainage:

- Use a new tubing set and a new bag every time you drain your pleural catheter.
- Keep the drainage bag below where the tube is inserted in your chest. This will make it easier to drain the pleural fluid.
- The amount of fluid you drain will be different from day to day. How much you drained one day can be a guide for when to drain the next time.
- Sometimes your bag may fill completely during one drainage session. Never fill more than one bag at a time. Do not drain more than 1 litre (1 bag) a day.
- The colour of the fluid can vary. Sometimes it can be a pale yellow, orange or cranberry red. This is normal and expected.

How do I drain my pleural catheter?

You will be given enough supplies for a few days when you leave the hospital. Your community nurse will bring and order you more supplies.

It is very important to keep everything clean and free of germs.

Before you start to drain the fluid, gather all your equipment. You will need:

- Sterile secondary intravenous (IV) line
- Sterile intravenous (IV) bag.
- Alcohol or chlorhexidine swabs
- 10 mL prefilled normal saline syringe

The hospital will give you full IV bags that need to be drained. The nurse will teach you how to drain the bags before you leave the hospital. The community nurse may give you empty bags or bags that need to be drained depending on what they have available. The community nurse will review the instructions below with you on how to drain, care for and properly dispose of the fluid.

Draining the IV bag:

To drain the IV bag you must:

1. Thoroughly wash your hands with soap and water for 15-20 seconds
2. Take the IV tubing and IV solution bag out of the packages.
3. Close the roller clamp on the IV tubing.



4. Connect the IV tubing to the IV bag by putting the white spike through the port of the bag.



5. Take the cover off the end of the IV tubing.



6. Hold the IV bag over a sink. Open the roller clamp on the IV tubing. Be careful not to touch the sink with the end of the tubing.
7. Drain all the fluid out of the IV bag. Do not close the roller clamp until the IV bag is completely empty. Replace cover on the end of the IV tubing until ready for use.

To drain the fluid from your chest, you must:

1. Sit down and make yourself comfortable.
2. The cap on the end of the pleural catheter is called a needleless adaptor. Use the alcohol or chlorhexidine swab to clean the end of the needleless adaptor by scrubbing for 30 seconds.



3. Let the needleless adaptor dry for 30 seconds.
4. Screw the 10 mL prefilled normal saline syringe on to the needleless adaptor and flush your pleural catheter (do not pull back fluid into syringe, simply flush). Once finished, disconnect and throw out the syringe.



5. Remove the cap at the end of the IV tubing.



6. Attach the IV tubing to the needleless adaptor.



7. Put the IV bag lower than your chest (below where tube is inserted into your chest). This lets gravity help to drain the fluid.

8. Open the roller clamp on the IV tubing



9. Take a few deep breaths in and out and then cough.

10. The fluid should start draining. If the fluid does not drain, go to: **What should I do if I attach myself to the catheter but no fluid comes out?**

11. Wait for 5 minutes after the draining has stopped to remove the bag (or once reaching the 1 litre mark on the bag).

12. Close the roller clamp on the IV tubing.

13. Unscrew the tubing from the needleless adaptor cap. The cap seals automatically.

14. Measure the amount of fluid in the bag using the markings on the side of the bag.

15. Use the sheet at the back of this booklet to keep a record of how much fluid drains each time.

16. Drain the pleural fluid into the toilet and throw out the bag and equipment in the garbage. If you are on chemo precautions, make sure to double flush the toilet and double bag the used equipment when you throw it out.

How long does it take for the fluid to drain?

The fluid usually takes from 15 to 90 minutes to drain each time. The fluid should run freely.

Possible Problems with Draining

Sometimes when draining the fluid, you may have:

- Discomfort in the chest
- Shortness of breath
- A cough that won't stop while the fluid is draining

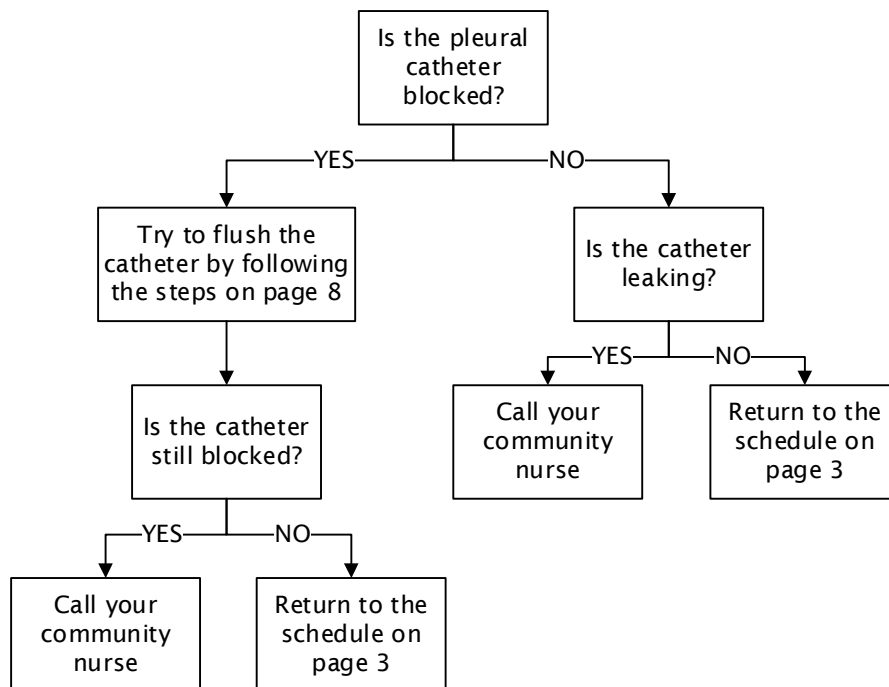
These may happen because the fluid is draining too quickly. If you slow the draining down, it can help.

To slow down the drain:

- To stop the fluid from draining, partly close the roller clamp. You may need to close it all the way.
- Wait 15 to 30 minutes, then open the roller clamp only part way.
- Let the fluid drain very slowly.

What should I do if I attach myself to the catheter but no fluid comes out?

If the fluid does not drain, check the tubing and needleless adaptor carefully for blood strands or clots. If they are blocking the line, follow the steps for How do I flush my pleural catheter? which are outlined on the next page.



How do I flush my pleural catheter?

The pleural catheter should be flushed daily before each drainage session and when not in use.

You will need:

- 10 mL pre-filled Normal Saline syringe
- Alcohol or chlorhexidine swabs

*Always keep the end of the needleless adaptor clean.

To flush the pleural catheter, you must:

1. Thoroughly wash your hands with soap and water for 15-20 seconds.
2. Use the alcohol or chlorhexidine swab to clean the end of the needleless adaptor of your pleural catheter by scrubbing for 30 seconds.



3. Let dry for 30 seconds.
4. Remove the cap from the saline syringe.
5. Screw the normal saline syringe onto the needleless adaptor.



6. Gently push the saline into the pleural catheter.
7. Once the syringe is empty, unscrew it from the end of the needleless adaptor and discard.
8. If the saline flushes easily and you have no shortness of breath, pain or discomfort, attach the new IV tubing and bag. However, if the saline does not flush easily, do not force it. Take a few deep breaths in, cough, move/reposition yourself and try again. If the saline is still difficult to flush, contact your Community Nurse (contact info on page 13).
9. Open the roller clamp and drain the pleural fluid as you normally do.
10. If you feel well and there is very little or no drainage once the drainage tubing and bag are connected, remove the drainage system from the needleless adaptor and leave it until your next scheduled drainage time. If you don't feel well, or if there is a lot of drainage and your dressing is wet, call your community nurse. Remember do not drain more than 1 litre of fluid a day.

What should I do if the drainage bag attached to my pleural catheter fills with air?

Sometimes, the drainage bag can fill up with air. This air must be let out of the bag so that the pleural catheter can drain.

Air can also get caught under your skin. If this happens, it will make the area where the pleural catheter comes out of your chest look swollen. This swelling is not dangerous, but it will need to be fixed.

We call letting air out of the bag “burping” the bag. Your community nurses will teach you how to do this yourself at home.



To “burp” the bag, you must:

1. Thoroughly clean your hands.
2. Close the roller clamp on the IV tubing to stop the air from entering your chest.



3. Keep everything clean. Pull the tubing out of the drainage bag. Make sure you do not touch the end of the tube or drainage bag.



4. Squeeze the air out of the bag slowly. Once the air is out, put the tubing back into the bag.



5. Open the roller clamp on the tubing and continue to let the fluid drain.

When can I shower?

You can shower after the incisions (cuts) have healed.

You can shower if the clear dressing (waterproof) is placed over your catheter unless your health care team tells you something else. Soaking in a bathtub is not recommended. In the beginning before switching to the clear (waterproof) dressing, try to shower before the nurse comes to your home for dressing changes.

Dressing Changes:

You will have two dressings when you leave the hospital. You will have an insertion site dressing that covers the place where the pleural catheter was put in and an exit site dressing that covers the exit site, where the catheter leaves your body.

The community nurse will take off the dressing at the insertion site three days after the catheter was put in. You will not need another dressing if it looks like the incision (cut) has healed well.

Your community nurse will change the dressing at the exit site three days after the catheter was put in. They will change your dressing every three days for two weeks, then once a week and when necessary (for example, if the dressing is wet or is coming off).

How long will the catheter be in my body?

The catheter can stay in place for as long as it is needed. Your health care team will tell you more about how long you can expect to have the catheter.

You won't need the catheter if the pleural fluid stops building up.

At your follow up appointment, your doctor will decide if you still need to have your catheter.

You will be given the date for your follow-up appointment before you leave the hospital. The Thoracic

Surgery Clinic is located at the Dickson Building 4th floor, Queen Elizabeth Health Science Centre Victoria General site, 5820 University Avenue Halifax.

If you notice any of the following signs and symptoms, contact your doctor immediately, call 911 or go to your Emergency Department:

- Redness, swelling or drainage around the catheter site.
- Temperature of 38°C (100.5° F) or higher.
- Shortness of breath after draining 1000 mL at one time.
- Severe chest pain during drainage not helped by slowing or stopping the flow of fluid.
- Very small amount of fluid drains from the catheter, and you feel short of breath.
- Any signs of new blood in the fluid.
- Any new purulent (puss) or yellow/green output from the pleural catheter.
- Less than 30 mL of fluid drain during 3 tries in a row to drain fluid (may be related to a blockage in the catheter or no fluid remaining in your chest to be drained)

Watch closely for changes in your health and be sure to contact your doctor if you have any problems. For 24/7 advice from a Registered Nurse and general health information, call 811.

Looking for more health information?

Find this brochure and all our patient resources here: <http://library.nshealth.ca/cancer>

Contact your local public library for books, videos, magazines, and other resources.

For more information, go to <http://library.novascotia.ca>

Nova Scotia Health promotes a smoke-free, vape-free, and scent-free environment.

Please do not use perfumed products. Thank you!

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The information is not intended to be and does not constitute health care or medical advice.

If you have any questions, please ask your health care provider. The information in this pamphlet is to be updated every 3 years or as needed.