

Twin-bag peritoneal dialysis (PD)

Technic B



Back home, you now have to do daily peritoneal dialysis. Here is a reminder of the steps to follow and the symptoms to watch for.

What is peritoneal dialysis?

Dialysis is necessary when the kidneys can no longer perform their blood cleansing function. It removes waste and excess water from the body.

With peritoneal dialysis, the blood is purified through a membrane that covers the organs in the abdomen, the peritoneum. It is used as a filter. To do this, a sugary liquid, called the dialysate, is injected into the abdomen. The liquid attracts and filters water and waste for as long as you keep it there. You then empty this liquid, which now contains both water and waste

Peritoneal dialysis doesn't cause pain. However, to make it possible, you first need to have a small tube called a catheter installed in your abdomen.



Dialysis is done through a tube (catheter) going into the abdomen.

How many times a day do I need to do my dialysis?

Generally, peritoneal dialysis (also called "exchange" or PD) is done:

- in the morning when you get up
- at noon
- at dinner time in the evening
- before going to bed



ATTENTION

If you have an internal examination, such as of the stomach (gastroscopy) or colon (colonoscopy), or any intervention involving the endometrium, uterus, bladder, or intestine: go on an empty stomach. It is important to advise your nephrologist in advance whenever such an intervention is scheduled.

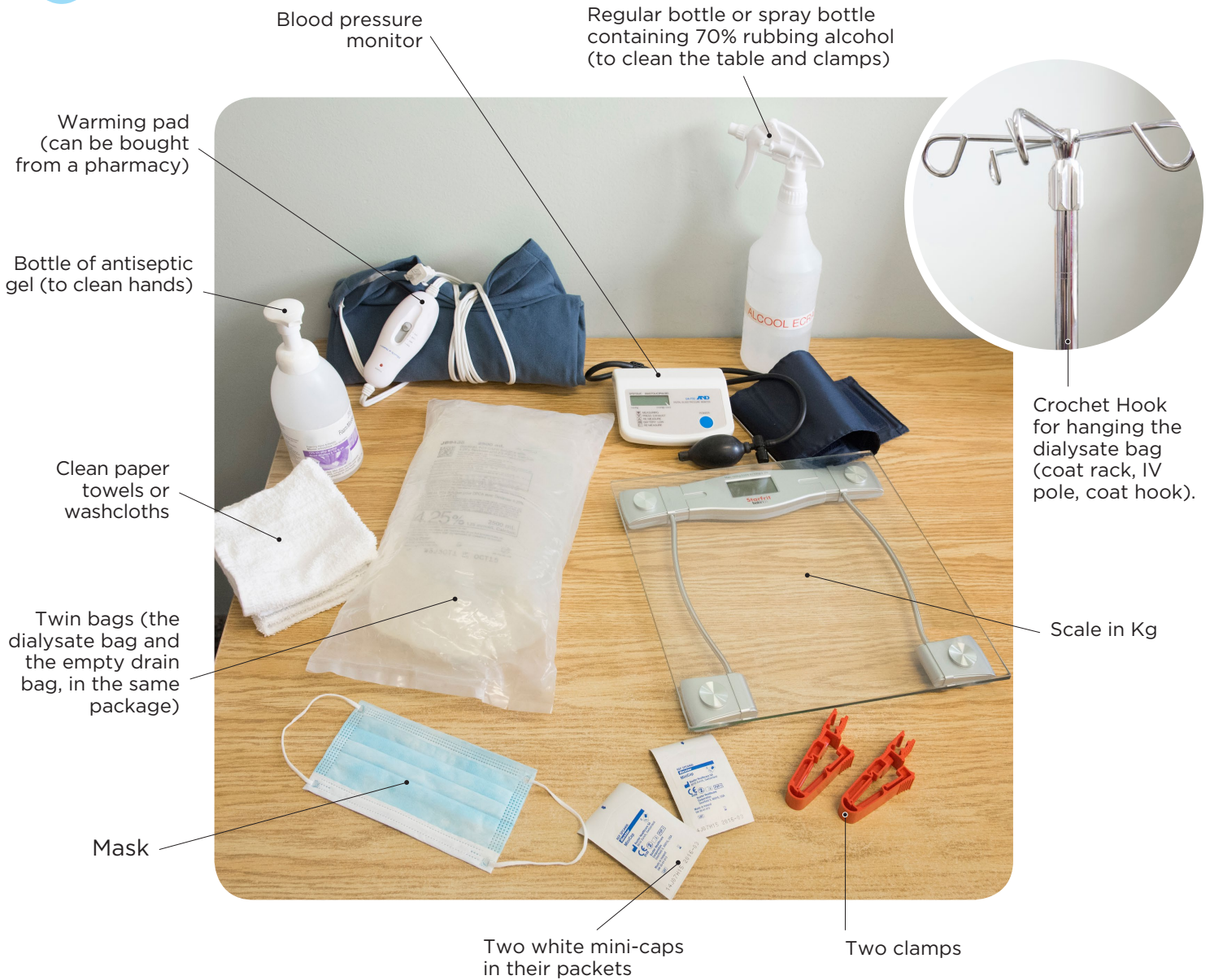
How much time does it take?

With practice, to do each dialysis you will need about 30 to 45 minutes.

What supplies do I need for my dialysis?



Before assembling the supplies, wash your hands with soap and water.



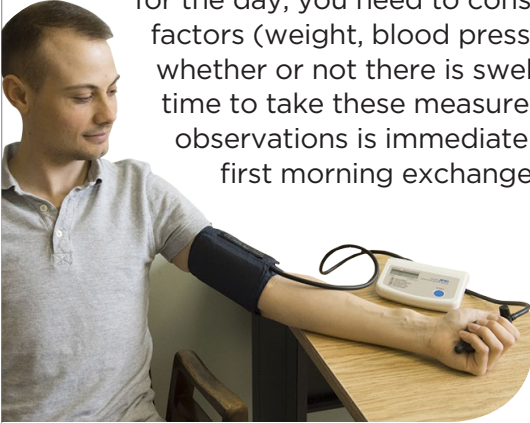
> Also assemble the supplies to inject heparin if there was fibrin in your last exchange; see Appendix 2, page 14. Fibrin is a blood protein, shaped like mini-spaghetti, that could block the catheter.



How do I choose the right concentration for my daily exchanges?

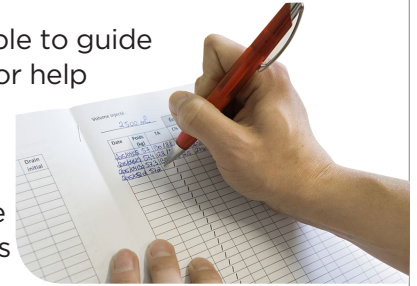
The dialysate bags used for exchanges are filled with sugar water (glucose). The sugar concentration varies depending on how much liquid you need to lose.

To know the concentration you should use for the day, you need to consider several factors (weight, blood pressure and whether or not there is swelling). The best time to take these measurements and observations is immediately after your first morning exchange.



You must enter your results in your logbook every day. This will help you and the team choose the concentrations that meet your needs.

Your care team is available to guide you. You can call them for help in selecting the best concentration to use based on your clinical condition (see telephone number at the end of this fact sheet).



To see the steps of the dialysis in detail, go to Appendix 1, page 5.

This table indicates what concentrations to use

Weight in relation to your dry weight (determined by your doctor)	Equal or lower weight	0.5 to 1.5 kg increase in your weight	More than 2 kg increase in your weight
Blood pressure	Normal blood pressure or The upper number of your blood pressure is between 100 and 130 (even if there is swelling)	Blood pressure above normal (between 20-30 points)	Blood pressure very high (more than 150)
Swelling noted in lower legs	None	Possible light swelling	Presence of swelling and possible shortness of breath
Quantity of liquid you should lose with your dialysis	Very little or no liquid eliminated (0-200 ml)	Each bag or exchange collects 300-600 ml of liquid	Each bag collects 800-1200 ml of liquid
Concentration of dialysate you should use	1.5 %	2.5 %	4.25 %

What should I do if the dialysate liquid won't enter my abdomen?

- > Check that the seal on the dialysate bag has been broken (see step 5). If not, break it and continue the steps from step 5 to try to fill your abdomen again.
- > Check that the valve of your catheter is unscrewed.
- > Check that a clamp has not been placed on the tube of the dialysate bag by mistake.

If the problem persists, tell your nurse.

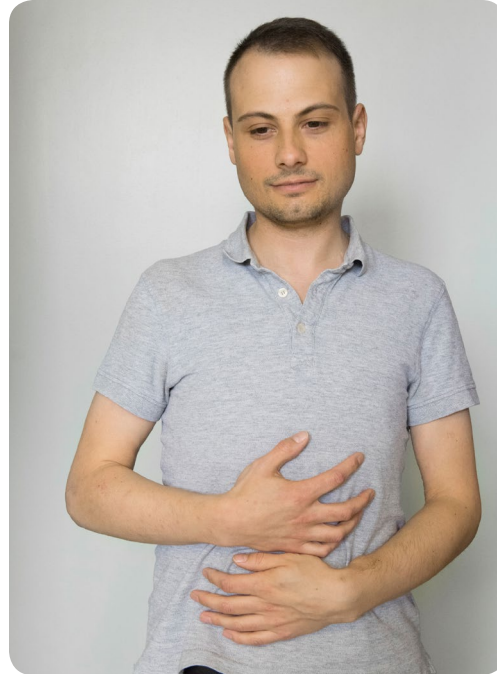
Quels signes et symptômes dois-je surveiller?

It's important to **call your nurse immediately** if you have any of the following signs. Don't wait for your next appointment!

- > You put in more liquid than you take out (your weight increases).
- > The time it takes to empty or fill your abdomen is longer than indicated.
- > There is any discharge, redness, odour, or sensation of heat at the exit site of your abdominal catheter.
- > Your weight increases or decreases by more than 1 kg compared to your dry weight.
- > You have difficulty controlling your blood pressure.
- > You are very swollen and easily get out of breath.

If you have **any of the following symptoms**, call your nurse or nephrologist, or **go the emergency room** of the hospital where your dialysis clinic is located.

- > You have **abdominal pain**.
- > Your drain liquid is not clear (cloudy, like pineapple juice). In this case, consult even if you don't have abdominal pain.
- > You have a fever over 38°C (100.4°F).
- > You accidentally contaminated your catheter during an exchange, or it came unscrewed, was cut or punctured.



Who can I contact for help or to ask questions?

If you have questions, don't hesitate to contact your nurse. Peritoneal dialysis Clinic:

> **514 890-8410**

If you're worried and can't reach the clinic nurse or the nephrologist on call, go to the emergency room of the hospital where your dialysis clinic is located.



USEFUL RESOURCES

Other health sheets published by the CHUM are available. Ask for those that might fit your situation.



You can also find them on our web site chumontreal.qc.ca/fiches-sante

The content of this document in no way replaces the recommendations and diagnoses made, or the treatment suggested by your health professional.

To find out more about the Centre hospitalier de l'Université de Montréal chumontreal.qc.ca

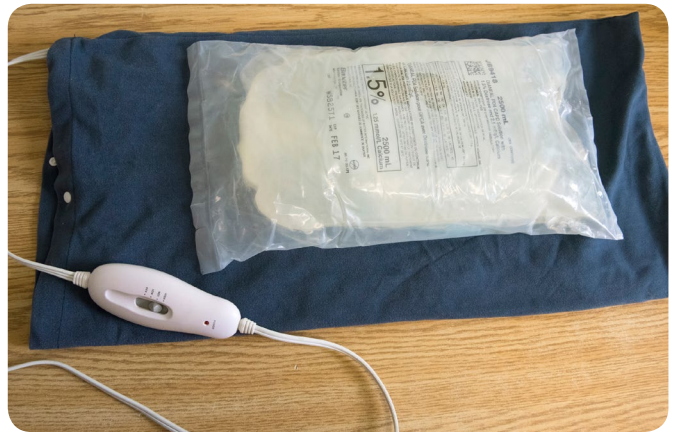
Follow all the steps and pay careful attention to the rules of cleanliness.

Precautions to take **BEFORE** doing the dialysis

Throughout the dialysis, it is very important not to contaminate the catheter tip, to prevent infection in your abdomen.



Set yourself up in a clean area. If you have an animal, it should **never** come into the room where you do your dialysis. You are at risk for peritoneal infection (peritonitis). Close doors, windows, and fans to prevent particles or dust from entering your catheter.



Heat the twin bags with the heating pad set at minimum to reach the correct temperature (around 37°C, 98.6°F, or body temperature).



Wash your hands and put on a mask, which you should wear.

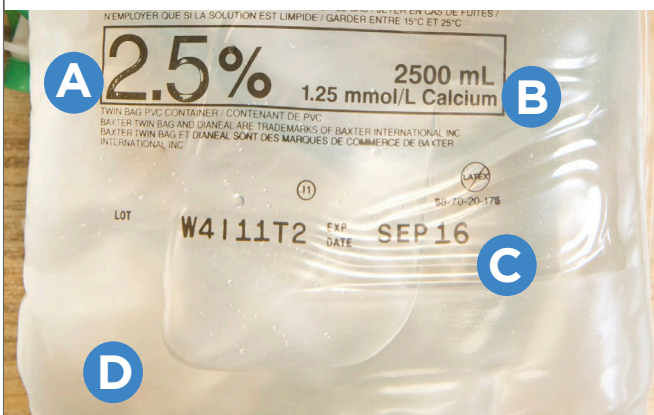


Wash the table and the clamps with 70% rubbing alcohol and a paper towel.



ATTENTION

- > Avoid overheating the twin bags.
- > To avoid burns, never heat the bags in the microwave.
- > Once the bags are heated, they should be used within 24 hours after being opened. If you exceed this period, discard them and use new ones.

1**VERIFY THE SUPPLIES**

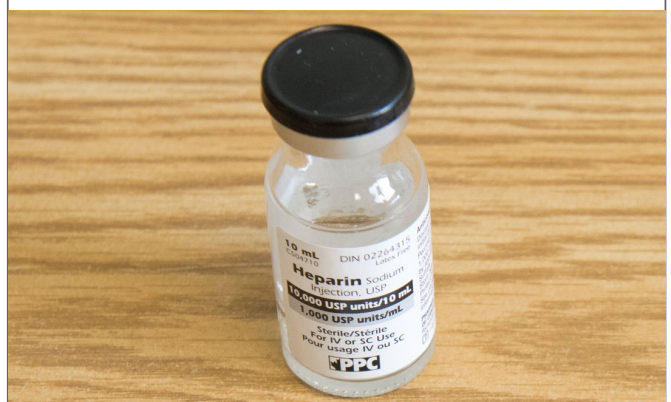
- 1- Once you have assembled the supplies, check the following:
- > On the bag, the label indicates:
 - A - the concentration you need
 - B - the volume prescribed by your doctor
 - C - an expiry date that is still valid
 - D - the bag is waterproof, there is no visible leak
 - > On the mini-cap packages, the expiry dates are still valid.
 - > If you need to add heparin to the dialysate bag, check that the date on the heparin bottle is still valid.

If any of these conditions are not met, don't use the supplies.



- 2- If the supplies are all in order, open the outer envelope of the twin bags and place them on the clean surface you washed with 70% rubbing alcohol. Don't put the outer envelope on this surface.

Also on that surface, put the two packaged white mini-caps, the bottle of antiseptic gel, the paper towel and, if needed, the heparin bottle, syringe, and 2 alcohol swabs.

2**PREPARE YOURSELF FOR DIALYSIS**

- 1- If needed, add heparin to the dialysate bag. See the steps in Appendix 2, page 13.



- 2- Detach the tubes from the bags and separate them.



- 3- Suspend the full dialysate bag from the hook.

2

PREPARE YOURSELF... (CONTINUED)



4- Place the (empty) drain bag on the floor.



5- Detach the abdominal catheter (or remove it from the dressing), but leave it closed.



6- Wash your hand with soap and water.



7- Sit comfortably to do your exchange.



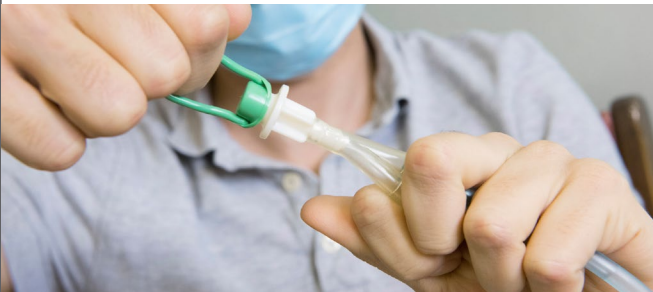
8- To keep your clothes clean, place the washcloth (or paper towel) on you. Slide it under your catheter and tuck part of it inside your pants to hold it securely.

3

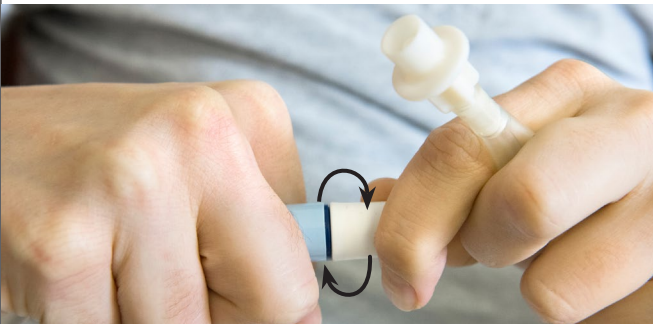
ATTACH THE TWIN BAGS



1- Wash your hands with the antiseptic gel.



2- Remove the rubber ring from the tube of the twin bags.



3- Unscrew the white mini-cap from the abdominal catheter and discard it.

Careful! Don't touch the tip of the catheter or the tip of the twin bags, to prevent contamination.



4- Screw the tube of the twin bags to the abdominal catheter.

4

DRAIN YOUR ABDOMEN



1- Open the abdominal catheter by unscrewing the valve.



2- The liquid that was in your abdomen will come out (drainage) and go into the drain bag. This step takes 15 to 20 minutes.

4**DRAIN YOUR... (CONTINUED)**

3- At the end, a bubble will appear at the entrance of the drain bag. With your fingers, pinch the tube connected to the drain bag. The bubble will move. Relax your fingers. If the bubble comes back to the same spot, and the liquid has stopped running through the tube, the drainage is finished. Some people may feel a pulling in their abdomen at the end of the drainage.



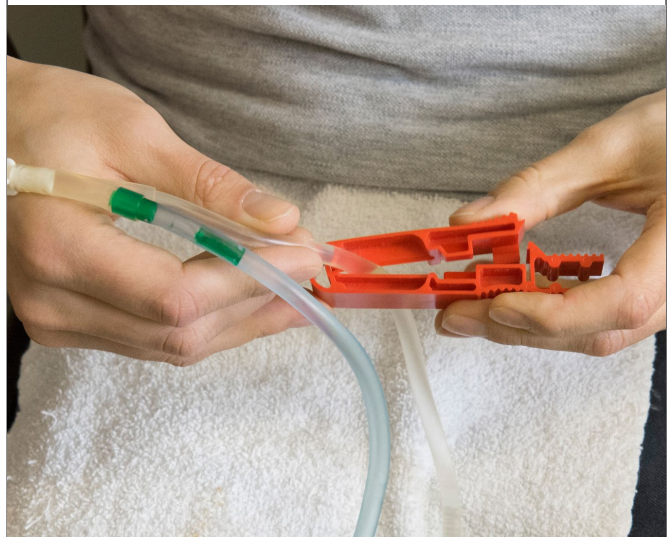
4- Close the abdominal catheter by screwing the valve shut.

**IMPORTANT**

The majority of the volume that you put in during the last exchange needs to be removed before proceeding to the next step. Otherwise, the drainage is not sufficient. Fibrin (a blood protein shaped like mini-spaghetti, which could block the drain), constipation, or part of the dialysate that passes back into the blood could cause insufficient drainage. If in doubt, contact your nurse.

5**REMOVE ANY AIR**

1- Break the seal on the tube connected to the dialysate bag. Count 5 seconds. This is the time required for dialysate to enter the tube and flush the air out of the drain bag.



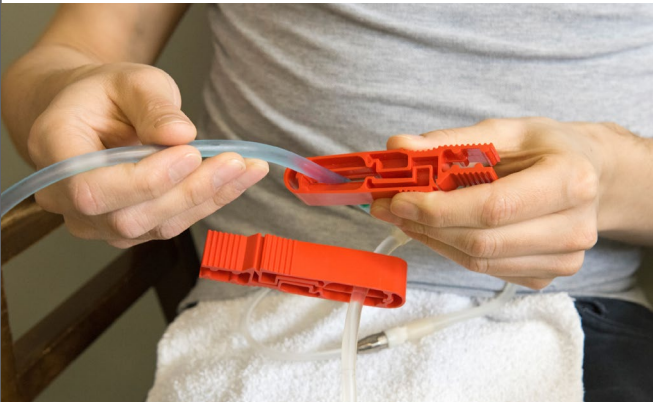
2- Put a clamp on the transparent tube immediately. The blue tube connected to the dialysate bag should be filled with liquid. If this is not the case, open the clamp again until all the air is expelled.

6

FILL YOUR ABDOMEN



- 1- Open the abdominal catheter by unscrewing the valve: the fluid will enter and fill your abdomen. Allow 10 to 15 minutes for this step.



- 2- When the dialysate bag is empty, place the second clamp on the blue tube of the dialysate bag.



- 3- Close the abdominal catheter by screwing the valve shut.

7

DISCONNECT THE TWIN BAGS



- 1- Open the packaging of one white mini-cap and place it on the table, leaving it inside the paper. The second white mini-cap will only be used if you drop or contaminate the first one.



- 2- Wash your hands with the antiseptic gel.

7

DISCONNECT THE... (CONTINUED)



3- Unscrew the tube of the twin bags from the abdominal catheter. Keep the abdominal catheter tube in your hand to avoid contaminating it.



4- You can let the tube of the twin bags fall to the floor.



5- Pick up the new white mini-cap as shown here to avoid contaminating it.



6- Put the new cap on the end of your abdominal catheter. Avoid touching it, so as not to contaminate it.



7- Remove the mask and discard it.

8

PUT THE CATHETER BACK IN PLACE



1- Store your catheter in your belt or stick it to your dressing.



2- If you don't have a belt, you can stick it to your dressing.

9

RECORD THE RESULTS



1- Weigh your drain bag (weigh yourself with the full bag and then without the bag and subtract to get the difference).

Volume Injecté : 2000 ml

Poches jumelées

Date	Poids (kg)	TA	C%	Échange #1		Échange #2		Échange #3		Échange #4	
				C %	S	C %	S	C %	S	C %	S
15-05-01	62,1	124 / 72	1,5	1900ml	1,5	2100ml	2,5	2400ml	1,5	2000ml	
15-05-02	62,5	132 / 73	1,5	1300ml	2,5	2300ml	1,5	2200ml	1,5	2100ml	
15-05-03	63,3	133 / 73	2,5	1450ml	2,5	2600ml	2,5	2300ml	1,5	2100ml	
15-05-04	62,4	134 / 70	1,5	2200ml	1,5	2100ml	2,5	2300ml	1,5	2100ml	
15-05-05	62,1	123 / 70	1,5	2100ml	1,5	2200ml	1,5	2000ml	1,5	2150ml	
15-05-06	62,5	125 / 75	1,5	2000ml	1,5	2100ml	1,5	2000ml	1,5	1900ml	
15-05-07	64,6	124 / 77	2,5	2400ml	1,5	2200ml	1,5	2000ml	1,5	2000ml	
15-05-08	62,2	125 / 73	1,5	2100ml	1,5	2000ml	1,5	2200ml	1,5	2000ml	
15-05-09	62,3	123 / 74	1,5	2600ml	2,5	2500ml	1,5	2000ml	1,5	2100ml	
15-05-10	61,9	118 / 68	1,5	2000ml	1,5	2100ml	1,5	2000ml	1,5	2200ml	
15-05-11	64,9	120 / 71	1,5	2000ml	1,5	2000ml	1,5	2100ml	1,5	2100ml	
15-05-12	62,3	125 / 76	1,5	2100ml	1,5	2000ml	1,5	2200ml	1,5	2000ml	

2- Record the result in your logbook.



3- Look at your drain liquid: it will be a little yellowish, but should be clear.

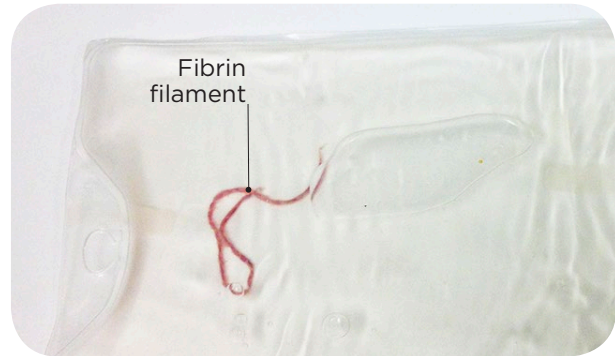
This completes the dialysis.

APPENDIX 2 : HEPARIN INJECTION

Here are the steps for injecting heparin into your dialysate bag.

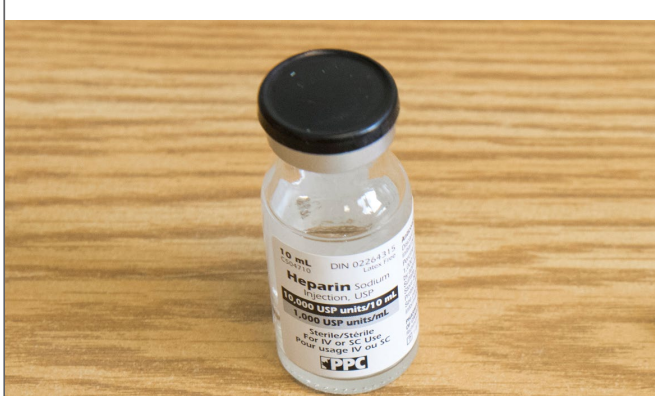
Heparin must be added to the dialysate if there is any fibrin in the drain bag after your exchange. Fibrin can be white or red.

This can be done for as long as there is any fibrin in the bag, once a day during a single exchange or according to your nurse's instructions.



1

HOW MUCH HEPARIN TO INJECT



You will need to inject 1 ml of heparin per litre of dialysate. For example, if your bag contains 2 litres of dialysate, you must add 2 ml of heparin to it.

2

DISINFECT



- 1- Remove the black cap if it is a new bottle. An opened bottle should be discarded after 28 days. Store heparin at room temperature.



- 2- Disinfect the top with an alcohol swab by rubbing for at least 10 seconds.

2**DISINFECT (CONTINUED)**

4- Open the needle package and screw it onto the syringe.

3**WITHDRAW THE HEPARIN**

1- Screw the needle with its cap onto the syringe.



2- Pull on the piston to draw in the same amount of air as the amount of heparin you will be taking out.



3- Push the needle of the syringe into the rubber cap. With the piston, inject the air into the vial.



4- Suction in the heparin, making sure the tip of the needle stays in the liquid.

**ATTENTION**

Be sure to inject all the air into the bottle. This will allow you to remove the heparin easily and without resistance.

4

INJECT THE HEPARIN



1- Disinfect the tip of the dialysate bag where you will inject the heparin. Rub for at least 10 seconds with an alcohol swab.



2- Position the rubber tip of the dialysate bag (full bag) facing upwards. Insert the syringe needle into the tip and inject the heparin.



3- Mix the dialysate pouch well.



4- Discard the syringe with its needle in the designated container.

If you pierce the tube of the dialysate bag when injecting the heparin, discard the dialysate bag and use a new one.

Continue the steps to complete your dialysis exchange.



Questions

Write down any questions you want to ask your care team so you don't forget anything.





Observations - Comments

Write down observations you feel are important: your symptoms, treatments, follow-up, energy level, spirit, etc.





Upcoming appointments



Resource people and contacts

Write down phone numbers, email addresses and websites that could be useful.



To find out more about the Centre hospitalier de l'Université de Montréal
chumontreal.qc.ca

