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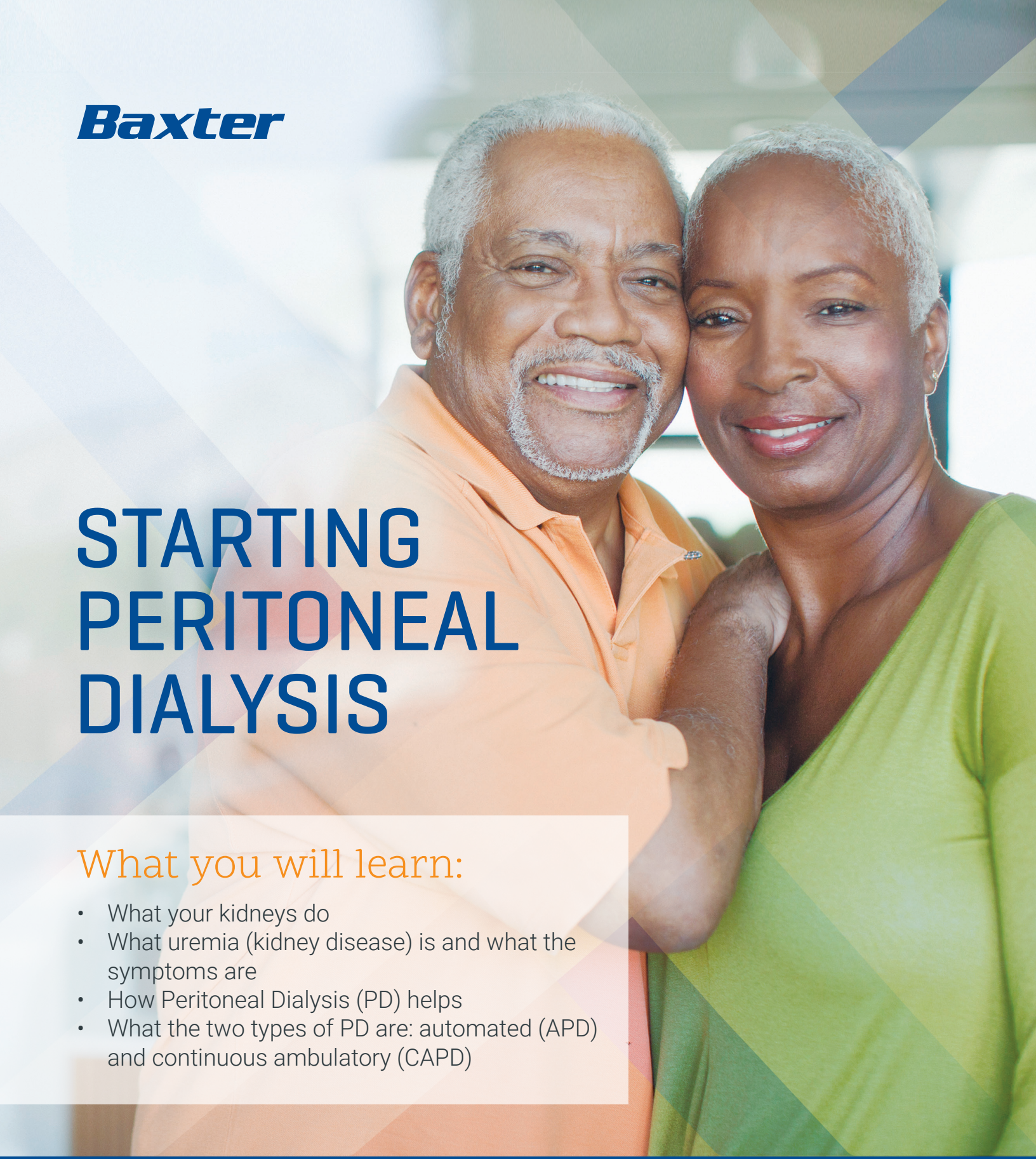


# STARTING PERITONEAL DIALYSIS

## What you will learn:

- What your kidneys do
- What uremia (kidney disease) is and what the symptoms are
- How Peritoneal Dialysis (PD) helps
- What the two types of PD are: automated (APD) and continuous ambulatory (CAPD)

PD Education

BOOKLET 1

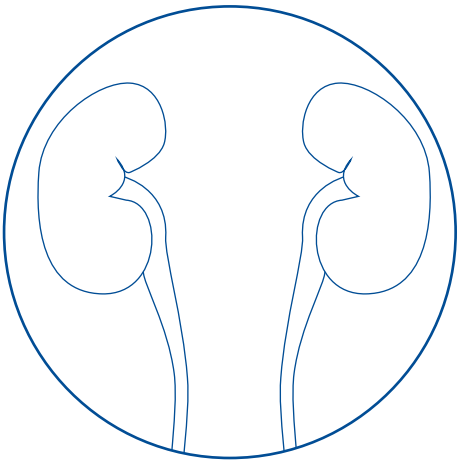
Now that you're starting PD, you may have some questions about how it will help you, what you need to do, and how it will fit into your life. This booklet will give you some important information to get started.

Living with a medical condition like kidney disease can be stressful. It is normal to have mixed feelings about starting a new treatment. Many people have discovered that they value the flexibility and freedom PD provides. With training from your health care team, you can feel confident about doing PD at home, and enjoy the benefits of your PD treatment.

# Kidneys and Uremia (Kidney Disease)

Your kidneys do several very important things for your body:[1]

- They clean your blood to remove waste and filter out extra water
- They help control your blood pressure
- They trigger your body to make new red blood cells



Uremia is a disease that happens when your body fluids are no longer in balance and waste products build up in your blood. People with uremia may experience some of the following symptoms:[2]

- Loss of appetite
- Bad taste in your mouth
- Trouble concentrating
- Nausea/vomiting
- Drowsiness
- Sleep disturbances
- Restless legs[3]

! PD is a treatment that helps relieve the symptoms of uremia. If you experience any symptoms of uremia after you have started PD, talk to your nurse or doctor right away.

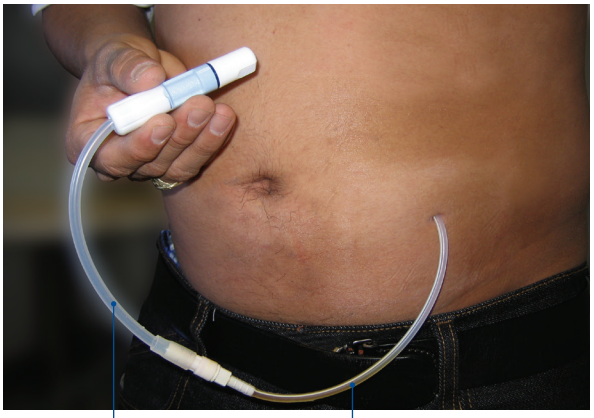
# How PD Helps

PD is a method for cleaning your blood using a special liquid, called PD solution, that is inserted into your abdomen and then drained out.[4]

**Benefits of PD[2]**
PD is done in the comfort of your home. With guidance from your PD team, you may be able to set your treatment schedule to match your lifestyle. You can likely do many of the things you enjoy, such as work, going to school, travelling, visiting with friends and family, and many outdoor activities. Unlike hemodialysis, PD does not involve blood and needles during treatment.

**Getting ready for PD[4]**
In order to move PD solution in and out of your body, you will get a PD catheter and a transfer set.

The catheter is a small, flexible tube that is surgically placed through the wall of your abdomen into a space called the peritoneal cavity. The lining of this cavity is called the peritoneal membrane. PD uses your peritoneal membrane as a filter, along with the PD solution to filter and clean blood. The catheter allows fluid to go in and out of your peritoneal cavity during a PD exchange. The transfer set is attached to your PD catheter and allows you to connect to your other treatment equipment and acts as a closure. The transfer set stays connected to your catheter. **It should only be changed by your PD nurse.**



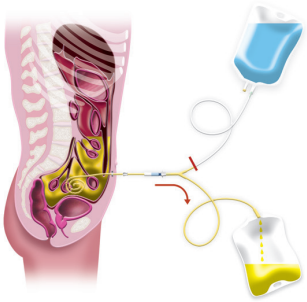
*Transfer set* *Catheter*

# Three Steps for a PD Exchange

A PD exchange is the process of moving PD solution in and out of your peritoneal cavity. It involves three steps:[4]

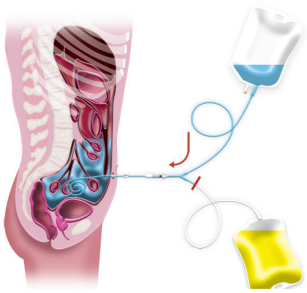
1 **Drain**

Removes old PD solution, along with waste products and extra body fluid.



2 **Fill**

Replaces it with new PD solution.



3 **Dwell**

The time when PD solution is in your peritoneal cavity. This is when dialysis takes place.

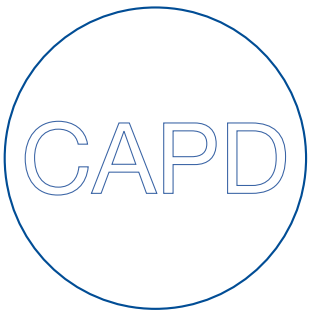
**Take a Closer Look!**
Dialysis happens during the third step, or the dwell step. While the PD solution is in your body, waste from your blood can pass through your peritoneal membrane and into the solution. When you drain the solution at the start of the next exchange, the waste and extra fluid are removed from your body.

# Two Types of PD

Depending on your needs, you may use APD or CAPD. In some cases, people use both methods.


**Automated peritoneal dialysis (APD)[4]**

- APD works during the night while you sleep.
- A machine called a cycler is set up to automatically do PD exchanges.
- Your nurse will tell you if you need a PD exchange during the day. This exchange may be completed using a cycler or by performing a manual exchange.




**Continuous ambulatory peritoneal dialysis (CAPD)[4]**

- CAPD is a manual method of PD that uses gravity to drain and fill the dialysis fluid through the PD catheter.
- CAPD exchanges (drain, fill, dwell) are performed by you, usually four times throughout the day.
- The drain and fill steps of each exchange require about 30 minutes to complete.
- During the dwell phase, you are free to go about your normal routine until it is time for the next exchange.

If you have any questions about how PD treatment can help you or which type you'll use, talk to your nurse or PD team.

# New Words

**APD[4]**
Automated peritoneal dialysis is a method of PD. It's performed by a machine (cycler) at night while you sleep.

**PD catheter[4]**
A small, flexible tube surgically placed through the wall of your abdomen. It allows PD solution to move into and out of the peritoneal cavity.

**PD exchange[4]**
A PD exchange removes waste products and excess fluid from the body and replaces them with new solution. Each PD exchange has three steps: drain, fill, and dwell.

**PD solution[4]**
A solution used to draw waste products and extra fluid out of your blood.

**Peritoneal cavity[4]**
The space inside your abdomen that holds the stomach and other organs. The lining of this space is called the peritoneal membrane.

**Peritoneal dialysis (PD)[4]**
Peritoneal dialysis is the process of cleaning the blood by using the peritoneal membrane as a filter.

**Peritoneal membrane[4]**
The lining of your peritoneal cavity. During dialysis it filters waste products and fluid from your blood into the PD solution.

**Transfer set[4]**
Tubing that connects the patient line on the disposable set to the catheter.

**Uremia[4]**
A medical condition caused by a build-up of waste products in the blood when your kidneys are not working well.

# References


1. Schira M. The Kidney. In: Counts CS, ed. *Core Curriculum for Nephrology Nursing.* 5th ed. Pitman, New Jersey: American Nephrology Nurses' Association; 2008:1-89.
2. Pendse S, Singh A, Zawada E. Initiation of Dialysis. In: Daugirdas JT, Blake PG, Ing TS, eds. *Handbook of Dialysis*. 4th ed. Philadelphia: Lippincott Williams & Wilkins; 2007.
3. Ali II, Pirzada NA. Neurologic Complications Associated with Dialysis and Chronic Renal Insufficiency. In: Henrich WL, ed. *Principles and Practice of Dialysis.* 4th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2009: 524-535.
4. Baxter Healthcare Corporation. Homechoice Pro APD Systems Patient At-Home Guide. 07-19-63-293-A1. Deerfield, IL; 2012.


# Additional Resources on PD

www.livenow.info

www.kidney.ca

www.kidneycampus.ca

www.ontariorenalnetwork.ca

www.bcrenalagency.ca

www.renal.org

www.kidney.org

www.agir.ca

www.kidneyhealth.ca/wp

www.nshealth.ca/renal-program

PD Training: Patient Training Self-Test

# Starting Peritoneal Dialysis

1. Normal kidneys clean the blood by removing waste products and excess fluid.

   True False

1a. When the kidneys fail, waste products build up in the body and body fluids are no longer in balance.

   True False

2. Which of the following are symptoms of uremia?
   a. Increase in appetite
   b. Drowsiness
   c. Double vision

3. As kidney function decreases, what happens to symptoms of uremia?
   a. Uremia symptoms worsen
   b. Uremia symptoms improve
   c. Uremia symptoms disappear

4. PD is a medical treatment that does which of the following?
   a. Removes waste products from the blood
   b. Removes excess water from the blood
   c. Both a and b

4a. When a person has uremia, the symptoms should go away after PD is started.

   True False

5. PD requires you to have a permanent catheter placed into which part of your body?
   a. Arm
   b. Neck
   c. Peritoneal cavity

6. A PD catheter allows the PD solution to move into and out of your peritoneal cavity.

   True False

7. A transfer set is attached to your PD catheter and connects to your PD system.

   True False

8. Which of the following are steps in the PD exchange?
   a. Drain
   b. Fill
   c. Dwell
   d. All of the above

9. Waste products and extra body fluid are removed when the PD solution is drained.

   True False

10. Continuous ambulatory peritoneal dialysis (CAPD) and automated peritoneal dialysis (APD) are two ways to perform dialysis at home.

    True False

11. Peritoneal dialysis (PD) can be planned to fit into your family and work routine.

    True False

12. CAPD uses gravity to drain and fill the dialysis fluid through the PD catheter.

    True False

13. APD works using a device and can be used while you sleep.

    True False

Patient Signature:

_____

Date: _____

Answers: 1–True, 1a–True, 2–b, 3–a, 4–c, 4a–True, 5–c, 6–True, 7–True, 8–d, 9–True, 10–True, 11–True, 12–True, 13–True

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PD Training: Patient Checklist

# Starting PD

Patient Name: _____

Person Trained: _____

Relationship to Patient: _____

Completed by (Signature): _____ Date: _____

## Patient Training/Retraining Checklist Instructions

- The Patient Training Checklist should be used to help track the patient's progress while being trained, to refresh the learning of a current patient/caregiver, or to retrain a returning patient.
- Place the date in the appropriate box as the patient verbalizes understanding of a topic or successfully completes a return demonstration of a procedure.
- If the topic is not applicable (N/A) to the patient, place the date in the N/A column.
- Use the Notes section as needed to indicate future training needs.

| Patient demonstrates or verbalizes understanding of: | Yes | No | N/A |
|---|---|---|---|
| **Lifestyle options of PD** | | | |
| • PD is therapy you do at home | | | |
| • Your PD treatment schedule may be set to match your lifestyle | | | |
| • Doesn't involve blood and needles during treatment | | | |
| • Offers opportunity to travel | | | |

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| Patient demonstrates or verbalizes understanding of: | Yes | No | N/A |
|---|---|---|---|
| **What normal kidneys do** | | | |
| • Clean blood to remove excess waste and water | | | |
| • Keep body chemicals in balance | | | |
| • Control blood pressure and help make red blood cells | | | |
| **When kidneys fail** | | | |
| • Waste products build up in blood | | | |
| • Body fluids are no longer in balance | | | |
| **Uremia** | | | |
| • A build-up of waste products in the blood when kidneys are not working | | | |
| • Common uremia symptoms | | | |
| **What is PD?** | | | |
| • Peritoneal membrane, along with PD solution, cleans and filters the blood | | | |
| • PD can relieve many of the symptoms of uremia | | | |
| **The PD catheter** | | | |
| • Permanent access for PD treatments | | | |
| • Small flexible tube surgically placed into space called peritoneal cavity | | | |
| • A transfer set is used to connect the PD catheter to tubing for the PD solution to fill and drain from the peritoneal cavity | | | |
| • Transfer set remains connected to your catheter and is changed only by PD nurse | | | |
| **What is a PD exchange?** | | | |
| • PD exchange removes used PD solution containing waste products and fluid from the body and replaces it with new PD solution | | | |
| • Each exchange has three steps: drain, fill, and dwell | | | |
| **Performing PD at home** | | | |
| • CAPD and APD are two ways to do PD at home | | | |

| Patient demonstrates or verbalizes understanding of: | Yes | No | N/A |
|---|---|---|---|
| **How CAPD works** | | | |
| • CAPD is a manual method of PD using gravity to drain and fill dialysis fluid through PD catheter | | | |
| • CAPD exchanges are performed by you, usually four times a day | | | |
| • Drain and fill steps of each exchange take about 30 minutes | | | |
| • During dwell phase, you go about your normal routine until the next exchange | | | |
| | | | |
| **How APD works** | | | |
| • A cycler machine is used to automatically perform each exchange | | | |
| • A cycler can be used at night during sleep | | | |

| Final checks | Yes | No | N/A |
|---|---|---|---|
| Lesson reviewed | | | |
| New words reviewed | | | |
| Self-test completed | | | |

Patient Signature: _____ Date: _____

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# Notes

(If topic not completed or retraining required, specify reason. Procedure training may be documented if applicable.)

# Notes

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