How to do Your Peritoneal Dialysis (PD) Exchange

There are several types of dialysis systems available. You and your dialysis team will decide the best system for you. All systems have the same basic principles for doing an exchange.

To do a peritoneal dialysis (PD) exchange, you need to connect the catheter with a special dialysis solution.

**Catheter connection**

Connecting the catheter to the bag of solution must be done in a clean, private area. Be sure to wash your hands well and wear a mask over your nose and mouth before doing the connection.

The outer end of the catheter is where you will connect to the bag of dialysis solution. Your catheter and the adapter attached to it must be kept sterile to prevent an infection in the peritoneum. This type of infection is called peritonitis.

**Dialysis solution**

The dialysis solution (dialysate) comes in a soft bag. It is made up of sterile (germ free) water, sugar called dextrose, and small amounts of some of the minerals or chemicals that are in your blood stream.

- **Strength and Volume**

  Dialysis comes in different strengths of sugar. The more sugar in the dialysate solution, the more concentrated it is, and the more water it will pull out of your body. You can judge how much excess fluid or body water you have inside you by measuring your weight and blood pressure every day, and following the direction of your PD nurse and doctor.

  The volume of dialysis bags varies from one liter or quart, up to three liters or quarts.

- **Warming the Solution**

  Warming the dialysis solution makes dialysis more comfortable for you, and the dialysis works better with warm fluid. **Warm the solution while the protective covering is still on the bag.** Use only dry heat such as a heating pad. Never immerse the solution in hot water. Tap water is not sterile, and could cause an infection.
Check every bag of solution before use for the following:

- **Strength:** 1.5%, 2.5%, or 4.25% - be sure you have the strength solution you are to use.
- **Clarity:** Can read print through the clear side of the bag
- **Expiration date:** Check date on bag - if it is past the expiration date, throw it away and use a new bag
- **Leaks:** Squeeze bag, check seams
- **Ports:** Assure all covers and tabs are intact

**Exchanges**

Exchanges need to be done 4 to 5 times each day based on the order of your doctor. An exchange consists of fill, dwell and drain steps.

- **Fill**
  
  2-3 quarts of PD solution (dialysate) is put into the abdomen through the PD catheter. The solution goes in by gravity and takes about 10 minutes.

- **Dwell**
  
  The solution stays in the abdomen 4-6 hours. While the dialysate stays or dwells in your abdomen, chemical toxins and fluids are being removed from your bloodstream. This process of removing the fluids and waste products is called dialysis.
• **Drain**

After the dwell time is complete, the solution is drained out by gravity. The drained fluid is similar to urine, and will be clear yellow in color. This will take about 20 minutes.

Once the draining step is complete, a new bag of PD fluid is connected to the PD catheter, and the cycle continues until you have used the total volume you are to use. These 3 steps are most often done 4 times a day with meals and at bedtime.

It takes a total of about 2 hours a day to fill and drain the solution.