

*Ask your
physician or
nurse if you have
any questions or
concerns.*

Peritoneal Dialysis

The kidneys play an important role in helping the body function. When the kidneys fail, a treatment such as peritoneal dialysis (PD) is needed to take the place of the kidneys. Your kidney care team, which includes your physician, physician assistant (PA) and nurse, will help you learn more about this. This brochure will get you started. It will explain:

- What PD is and how it can help.
- What to expect.
- Lifestyle changes and how to care for yourself.

Kidney function

The kidneys:

- Remove waste and extra fluid from the blood.
- Regulate certain chemicals (hormones) in the blood.
- Control blood pressure.

When the kidneys do not work well, then blood pressure, waste products and fluids in the body can rise to unsafe levels. Examples of waste products include urea and creatinine. These are normal byproducts of body functions that the kidneys remove from your blood. Certain chemicals in your blood, such as potassium and phosphorus, may also rise to dangerous levels if your kidneys cannot remove them. Kidney failure can cause:

- Nausea, poor appetite, weight loss
- Trouble sleeping, nighttime muscle cramping
- Weakness, less energy, anemia
- Swelling
- Shortness of breath
- Irregular menstrual periods
- Dry, itchy skin
- Irregular heart rhythms and heart problems

Dialysis is a treatment that takes over some of the work of your kidneys. It removes these wastes and extra fluid so they don't build up in your body. It also helps control your blood pressure.

When to start dialysis

Kidney failure progresses through stages. Your physician or PA will check your blood tests and tell you when you need to consider dialysis. Usually, this occurs when your glomerular filtration rate (GFR) falls below 15. The GFR is estimated from the creatinine blood test. Creatinine is a normal waste product of muscle tissue that the kidneys filter out of the blood and excrete in the urine. A low GFR indicates that the kidney's ability to get rid of creatinine is dropping. Therefore, creatinine is building up in the blood. This is a sign of kidney failure.

Types of PD

PD is one form of dialysis. It can be done while you are at home or work, or even when travelling. There are 2 major types of PD. Your healthcare provider can help you decide which type is best for you. The 2 types are:

- **Continuous ambulatory peritoneal dialysis (CAPD).** When using CAPD, you will be taught to do your own dialysis 3 to 4 times a day.
- **Automated peritoneal dialysis (APD).** You will be connected to a machine that does the dialysis while you sleep. Depending on your remaining kidney function, you may also need to use it during the day. If you use APD, you will be taught how to use the machine.

About PD

Before starting PD, a soft tube (catheter) is placed in your belly. This requires minor surgery. Although part of the catheter will be inside your body, the rest of it will be outside. The outer part of the catheter will be connected to special tubing for dialysis.

During PD, 2 to 3 quarts of a special cleansing fluid (dialysate) flows into your belly through the catheters. This takes about 10 minutes. This fluid fills your belly and dwells inside for a few hours or more. The length of **dwel time** depends on your body size and how much waste needs to be removed.

During the dwell time, wastes and fluids pass through the inside lining of your abdomen into the dialysate. This lining acts as a filter and prevents other important blood products from leaving your body.

If you use the CAPD method, the catheter is capped off after the dialysate fills your belly. This is to prevent leakage. At the end of the dwell time, the cap is removed and an empty bag is attached so the dialysate can be drained out. When your belly is emptied of dialysate, the catheter is capped again, and the bag with the used dialysate is discarded.

This process is repeated several times throughout the day. Each sequence of filling the belly with fresh dialysate, letting the fluid dwell and then draining it is called an **exchange**. If you use the APD method, the machine will do the exchanges for you.

Learning to do PD

Before doing PD at home, you will be taught how to:

- Do the exchanges if you are using CAPD
- Set up the machine if you are using APD
- Order supplies
- Clean and care for your catheter
- Protect yourself from infection

Your PD prescription

Your physician will prescribe the type of dialysis you need. Your prescription may vary and will depend on several factors, including:

- Your body size. This determines how much dialysate is needed or how many exchanges you need.
- Remaining kidney function. A blood test and 24-hour urine collection may be used to help determine this before starting dialysis and periodically afterwards. If your kidney function changes, your dialysis needs may change.
- Your nutrition. It is important to follow diet guidelines to get the right nutrients. This can help you feel better during dialysis. Changes in diet may affect your dialysis needs.
- General health. If you are getting enough dialysis, you should feel well, with a good appetite and the energy to do the activities you wish to do. If not, please tell your physician, especially if you are unable to complete your day to day activities because of:
 - Nausea that interferes with eating.
 - Loss of appetite or taste.
 - Low energy or feeling tired.

Your physician may need to adjust your dialysis prescription or treat other medical problems that may be the cause.

Your PD prescription will include:

- How many exchanges you need each day
- How long the dialysate should stay in your belly (dwell time)
- How much dialysate to use for each exchange
- What type of dialysate to use

Infection control

Peritonitis is a serious infection that affects the inside lining of the belly where the dialysate dwells. This occurs when germs get in through the PD catheter. Antibiotics are needed to treat this. However, it must be treated promptly. Please follow these guidelines to prevent infection:

- Scrub your hands with an **antibacterial** soap for at least **2 minutes before each exchange**. Use a **disposable paper towel** to dry your hands. This avoids contact with germs that may be on a cloth towel.
- After washing your hands, touch only the supplies used for PD. If you touch something else, be sure to wash your hands again.
- Make sure the PD exchanges are done in a **clean** area.
- You and anyone else in the room must wear a surgical **mask**. This prevents germs from settling on the catheter when they are breathed out of the mouth.
- Prepare all your supplies and equipment before you start your PD.
- Children or pets should **not** be in the room during PD.
- Please turn off any ceiling fans or air conditioners. This helps prevent dust germs from being blown onto the catheter or the sterile supplies used for PD.
- Close door and windows to prevent drafts that may blow dust germs on the PD site.
- Do not cough or sneeze on to your PD supplies. They are sterile and need to be kept free of germs. If you do so, begin again with new supplies. Discard anything that has been contaminated with germs.
- Follow the instructions to do the exchanges exactly as you were taught. Ask your care team first if you need to make any changes.

Catheter care

To keep your catheter working well, please do the following **each day**:

- Wear loose fitting clothing, especially around the exit site. Tight clothes or belts can affect catheter function.
- Thoroughly wash your hands before and after each PD exchange.
- Do not tug or pull on the catheter.
- Tape the catheter to your skin to prevent accidental pulling. Check this each day.
- Keep sharp objects like knives or scissors away from the catheter.
- Check the catheter for any cracks.
- Clean the catheter and the exit site with soap and water at least once a day. Use a clean washcloth each time.

Your dialysis team may ask you to keep a special dressing over the catheter exit site. If so, follow their instructions to care for and clean the catheter and the site around it.

Protecting your kidneys

Even if you need dialysis, you probably still have some kidney function left. Help keep your remaining kidney function and avoid unnecessary problems by following these tips:

- ✓ Take blood pressure medicines as prescribed. Keeping your blood pressure under control helps protect your kidneys from further damage.

- ✓ Don't take medicines that can cause more kidney damage. These may include certain antibiotics and over-the-counter pain medicines called non-steroidal anti-inflammatory drugs (NSAIDs). NSAIDs include many different medicines, including ibuprofen (Motrin®, Advil®) and naproxen (Aleve®, Naprosyn®).
- ✓ Ask your team if taking water pills (diuretics) will help you. They may help prevent excess buildup of salt and water in your body.
- ✓ Keep other medical conditions well controlled, such as diabetes and high blood pressure.

Diet

Your diet may need to change after you start dialysis. Although you may need to limit some foods, it is still important to get the proper nutrition and calories needed to keep as healthy as possible. A dietitian can help you plan a menu and choose the right kinds of foods.

Note: Your PD fluid does have sugar in it. This may affect your weight. Talk with your dietitian to help you adjust your diet to avoid gaining weight.

If you take insulin or other medications for diabetes, your dose may need to be adjusted.

Lifestyle

It takes time to adjust to the changes that dialysis makes to your life. Once a routine is established and you become used to the dialysis routine, you may feel better. With dialysis and medications, you may feel stronger and less tired. You may even enjoy many of the same activities you did before you had kidney disease.

Regular exercise can help you feel better and make you stronger. To improve the quality of your life, ask what type of exercise program is right for you.

The support of family and friends can make a difference. Continue to do the things you enjoy with loved ones.

Questions or problems

Even after you've started PD at home, you will still see your dialysis care team for blood tests and checkups regularly. They will check with you about:

- Your overall health
- Your nutritional status
- Your dialysis treatments
- Any problems or symptoms you may be having

Please bring your concerns to your care team at your visits. Between visits, call the office if you have questions or concerns. Your care is our priority! Remember, you are not alone.