

Fact sheet

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Peritoneal Dialysis: A Treatment Option

What is dialysis?

When you have end stage kidney disease your body cannot get rid of extra water and waste products.

Dialysis is a treatment for end stage kidney disease that removes waste products and extra water from the blood by filtering the blood through a special membrane. There are two forms of dialysis - haemodialysis (which can be done at home or at a dialysis centre) and peritoneal dialysis (is done at home).

This fact sheet deals with peritoneal dialysis only.

For information about haemodialysis see the *Haemodialysis* or *Home Haemodialysis* fact sheets. See *Kidney Transplant* or *Non-dialysis Supportive Care* fact sheets for information about other treatment options.

What is peritoneal dialysis (PD)?

Peritoneal dialysis occurs inside your body using your peritoneal membrane as a filter. This membrane lines your peritoneal (abdominal) cavity, covering organs such as your stomach, liver, spleen and intestines. It has a fine layer of tissue with a rich blood supply.

During peritoneal dialysis, the membrane is used to filter waste products and extra fluid from your blood. A special peritoneal catheter is used to transfer dialysis fluid in and out of the peritoneal cavity.

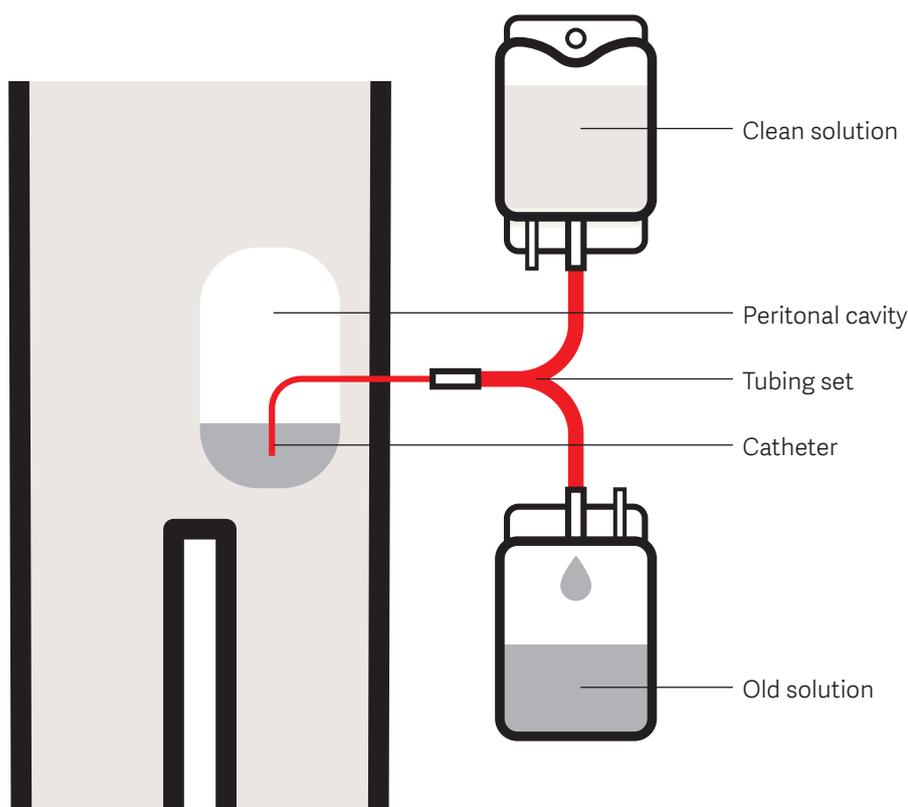
Peritoneal dialysis is usually done at home. Your health care team will train you to do this yourself, or you can also have a family member or carer trained to help you.

What is a peritoneal catheter?

A peritoneal dialysis catheter is a soft, flexible plastic tube about half a centimetre wide. The catheter is put into your body during a small operation. Your skin heals around the tube. It stays in your body for as long as dialysis is needed. Some of the catheter is on the outside of your abdomen (belly). This catheter is used to move dialysis fluid (dialysate), a special fluid that helps to clean your blood, in and out of your body.

The tube is usually below and to one side of your navel (belly button). The place where the tube comes out of your belly is called the 'exit site'. You and your health care team will decide on the best location for the catheter. The tubing can be worn comfortably and is easily hidden under clothing.

You are taught to look after your exit site as part of your daily routine as you need to be careful to avoid infection. The catheter may seem strange at first but most people become used to them quickly.



How does PD work?

The PD cycle is: drain, fill, dwell. Each time this cycle is repeated, it is called 'an exchange'. You carefully connect your catheter and tubing to a bag of dialysate. The dialysate contains glucose (a type of sugar) but also contains substances that are similar to those in your blood. This tubing also connects to a drain bag.

Drain: First you drain out the old dialysate which has been in your peritoneal cavity for the last 4 - 8 hours.

Fill: Your peritoneal cavity is filled with the new dialysate.

Dwell: You disconnect from the tubing and bags. The dialysate remains in your peritoneal cavity until it is time to drain again.

During this time, waste and extra fluid are drawn out of the blood vessels and through your membrane into the dialysate.

Why are there different types of PD?

The different types of PD suit different lifestyles. Peritoneal membranes are also different and one type of PD may suit your peritoneal membrane better. The two types of PD are known as Continuous Ambulatory Peritoneal Dialysis and Automated Peritoneal Dialysis.

Continuous Ambulatory Peritoneal Dialysis (CAPD)

With CAPD you always have dialysate in your body so your blood is constantly being cleaned. Four exchanges are usually done each day. Each exchange takes about 30 minutes and can be done almost anywhere. In between exchanges you are free to go about your daily activities. Exchanges are typically done on waking, at lunch time, at dinner-time and prior to going to bed. Some flexibility is available for busy days.

CAPD works by gravity. When the drain bag is placed at floor level the fluid drains out. By raising the new dialysate bag above shoulder level, the new dialysate flows into your peritoneal cavity.

Automated Peritoneal Dialysis (APD)

During APD a machine called a cycler does exchanges for you. Each night your peritoneal catheter is attached to the tubing of the cycler. It does several exchanges, moving the dialysate in and out of your body while you are asleep. APD is done every night and usually takes between 8 - 10 hours. During the day dialysate is left in your body. In the evening the dialysate is drained out automatically by the cycler.

How do I learn to do PD?

Once your peritoneal catheter has been inserted and is ready to work (which usually takes a couple of weeks) you will be trained to do the exchanges. Nurses at the training centres will organise training dates and times with you. Training is important to make sure you can do the dialysis safely. You should allow one week to focus on training. Another person can do some training with you if they will be supporting you at home.

During training you will learn to:

- perform the exchanges
- care for your exit site
- manage your general health
- manage any problems
- order and look after your supplies

Once you are performing PD at home your supplies will be delivered once a month into the storage space that you choose. You will need a space about the size of a double wardrobe. The training staff will continue to monitor your health, be available for any problems, and will see you regularly either at clinics or in your own home.

Making a dialysis choice

The choice between types of dialysis depends on factors such as your age, health and lifestyle. The benefits and drawbacks of each type can be discussed with your health team and your family.

There are many benefits of using PD, including:

- freedom to travel with a little organisation
- flexible dialysis in your own home
- control over your lifestyle
- an easy technique that can be learnt by most people in one week
- a gentle dialysis that operates all day
- most people have no diet restrictions and very few fluid restrictions

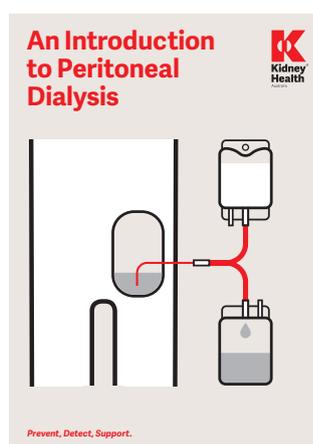
What are the main difficulties on PD?

- Peritonitis is an infection that can occur if bugs get into your peritoneal membrane. Careful hand washing is the best prevention. Treatment is by putting antibiotics into the dialysate bags. Most peritonitis can be cured if treated quickly.
- Exit site infection is an infection around your peritoneal catheter. Looking after your catheter carefully can prevent this. Antibiotics are the usual treatment.

My Kidneys, My Choice is a useful decision aid that will help you to make your choice. It contains a check-list of issues that you should consider when making your choice. The decision aid is available from the Treatment for kidney disease > Choosing your treatment page at kidney.org.au.

More information

For more information on PD can be found in the *An Introduction to Peritoneal Dialysis* booklet.





THINGS TO REMEMBER

- Peritoneal dialysis (PD) is a treatment option for end stage kidney disease that you can do at home.
- There are two different types of PD to suit different lifestyles and peritoneal membranes. Your health care team will help you decide which type is best for you.
- You will receive training to make sure that you can perform PD safely at home.

What does that word mean?

Antibiotics - A medication used to treat and prevent a variety of bacterial infections and disease.

Catheter - A plastic tube that is used to take fluid in or out of your body.

Cycler - A machine that connects to a catheter and performs the exchanges overnight during automated peritoneal dialysis.

Dialysate - Special fluid that is used during dialysis to help clean the waste and excess fluid from your blood.

Exchanged - One treatment cycle of peritoneal dialysis.

Exit site - The point where the peritoneal catheter exits your abdomen.

Peritoneal cavity - The space in the abdomen (belly) holding the intestines and other organs.

Peritoneal membrane - The membrane that lines your peritoneal cavity and covers organs such as your stomach, liver, spleen, and intestines.

For more information about kidney or urinary health, please contact our free call Kidney Health Information Service (KHIS) on 1800 454 363.

Or visit our website kidney.org.au to access free health literature.

This is intended as a general introduction to this topic and is not meant to substitute for your doctor's or Health Professional's advice. All care is taken to ensure that the information is relevant to the reader and applicable to each state in Australia. It should be noted that Kidney Health Australia recognises that each person's experience is individual and that variations do occur in treatment and management due to personal circumstances, the health professional and the state one lives in. Should you require further information always consult your doctor or health professional.



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