

PERITONEAL DIALYSIS - A TREATMENT OPTION



WHAT IS DIALYSIS?

Dialysis or a kidney transplant is needed when your kidneys have stopped working. A sudden drop in kidney function is called Acute Kidney Failure. It is often short lived and seldom means you will stay on dialysis. More often kidney function slowly stops working over a number of years until it fails permanently. This is when dialysis or a kidney transplant is needed and usually happens when there is less than 10 percent function left. Your doctor will tell you when it is time to start treatment.

Dialysis is a treatment for kidney failure that removes waste products and extra water from the blood by filtering the blood through a special membrane to remove waste products. There are two forms of dialysis - haemodialysis and peritoneal dialysis. See Haemodialysis fact sheet for more information about haemodialysis.

WHAT HAPPENS DURING PERITONEAL DIALYSIS?

Peritoneal dialysis replaces some of your lost kidney function. It is usually performed at home by yourself and a family member can be trained to help you. Short term training is needed, and this is organised by your health care team.

Peritoneal dialysis occurs inside your body using the peritoneal membrane as a filter. This membrane is normally found inside your body and has a fine layer of tissue with a rich blood supply. It lines your peritoneal cavity, covering organs such as your stomach, liver, spleen and intestines. During peritoneal dialysis, the membrane is used to filter waste products and extra fluid from your blood. This is done in three main stages; fill, dwell and drain.

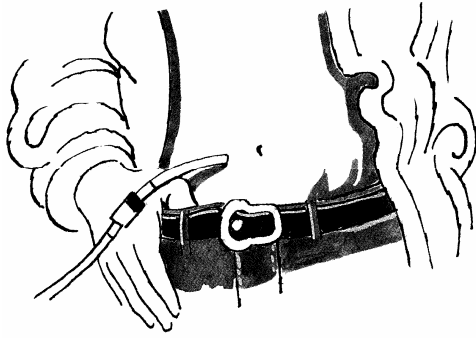
A catheter or tube is used to fill your peritoneal cavity with a special fluid called dialysate. The fluid contains glucose (a type of sugar) but also contains substances that are similar to those in your blood (fill). The fluid remains in your cavity for a period of time. Waste and extra fluid are drawn out of the blood vessels and through your membrane into the dialysate during this time (dwell).

After a time the dialysate, carrying the waste and extra fluid, is drained out (drain) and replaced with fresh dialysate. Each time this cycle is repeated, it is called 'an exchange'. The amount of dialysate used for each exchange depends on body size. Children need smaller amounts than adults. Adults can comfortably hold 2-3 litres per exchange. Exchanges can be done manually or by a machine.



WHAT IS A PERITONEAL CATHETER?

A peritoneal dialysis catheter is a soft, flexible plastic tube about 0.5 cm in diameter. The catheter is put into your body (abdomen) during surgery. 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 allows dialysis fluid, a special fluid that helps to clean your blood, to be moved in and out of your body painlessly.



Catheter 'exit site'

The tube is usually below and to one side of your navel. 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 easily hidden under clothing. You are taught to look after the exit site as part of your daily routine and care must be taken

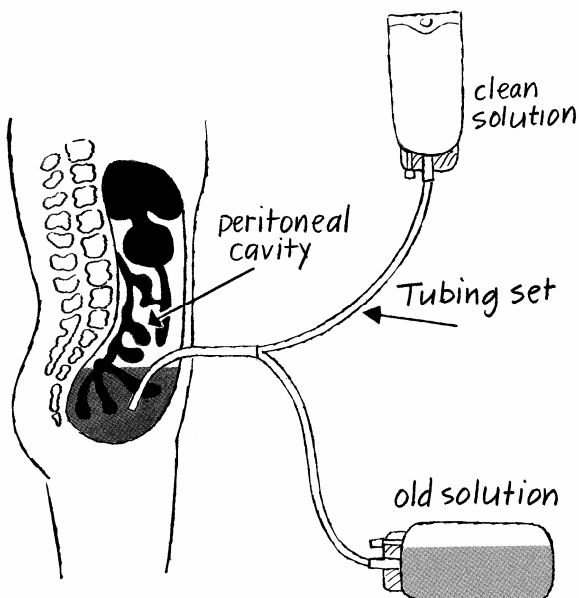
to avoid infection. The catheter may seem strange at first but most people become used to them quickly.

ARE THERE DIFFERENT TYPES OF PERITONEAL DIALYSIS?

There are two types of peritoneal dialysis - 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.



During an exchange a dialysis solution bag is connected to your catheter. By raising the solution bag above shoulder level, the solution flows into your peritoneal cavity under the influence of gravity. Dialysis begins straight away. After 4 to 6 hours a drainage bag is connected to your catheter then lowered to the floor to drain the used fluid. Fresh solution is then put into your peritoneal cavity to start the process again.

Automated Peritoneal Dialysis (APD)

During APD a machine called a cyclor does exchanges for you. Each night your catheter is attached to the tubing of the cyclor. 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 usually left in your body so that dialysis continues. In the evening the dialysate is drained out automatically by the cyclor.

MAKING A DIALYSIS CHOICE

The choice between types of dialysis depends on factors such as your age, health and lifestyle as well as the resources available. The benefits and drawbacks of each type need to be discussed with your health team and family. It may be possible to change between dialysis options if one does not suit.

For more information about kidneys health or this topic, please contact Kidney Health Australia: Kidney Information Line (freecall) on 1800 682 531 or visit website www.kidney.org.au

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.

Kidney Health Australia gratefully acknowledges the valuable contribution of the National Renal Resource Centre and the KHA Kidney and Urinary Advisory Group in the development of this material.

Revised May 08