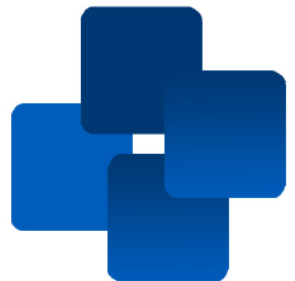


# **Patient Information**

## **Peritoneal Dialysis**

Renal Department

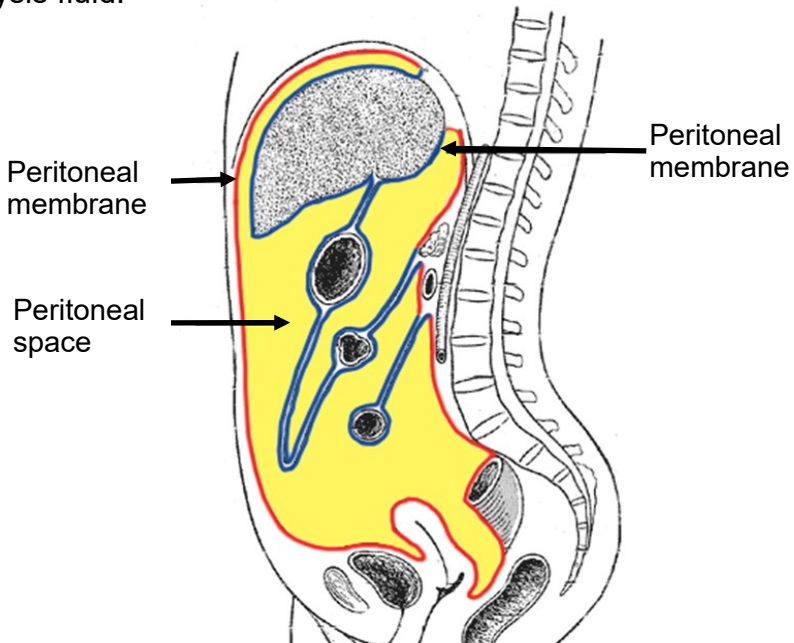


## What is peritoneal dialysis?

Peritoneal dialysis (PD) is a treatment for kidney failure. It uses the lining of your abdomen to filter your blood inside your body. This lining is called the peritoneum.

## What is the peritoneum?

The peritoneum is a natural membrane that lines the inside of the abdominal wall and covers all the abdominal organs. It has lots of extremely tiny holes that allows water and toxins from the blood to pass through working as a natural filter. The peritoneum has two layers, and the space between the layers can be used as a reservoir for dialysis fluid.



## How does peritoneal dialysis (PD) work?

A special liquid called dialysis fluid is put into the abdomen (peritoneal space). Whilst the dialysis fluid is inside your abdomen, it absorbs waste and extra fluid from the body. The peritoneal membrane acts as a filter. The dialysis fluid is then drained out of your body after a few hours, taking with it the toxins and excess water. This process is called an exchange.

## What is a PD catheter?

A few weeks before starting the treatment, you will need a small operation to place a soft tube, called a catheter, into your abdomen. The catheter is placed into the peritoneal space. This stays in your abdomen all the time, with part of the catheter on the outside of your body. It is about 30cm (12in) long and as wide as a pencil. The site where the catheter enters and leaves the body is called the 'exit site' and is kept covered with a small dressing.



Catheter exit site

## What preparation is needed before the PD catheter insertion?

Firstly, you will be assessed in Access Clinic by a surgeon who will examine your abdomen, checking for hernia's or any other medical problems. It will be decided whether you will have the insertion under a local or general anaesthetic.

Prior to surgery you will be prescribed strong laxatives to empty the bowel, a skin cleansing wash and an antibacterial nasal ointment.

You will be asked not to eat or drink for 4-8 hours before the operation, so that your stomach is empty.

On the day of the operation you will be given a prophylactic antibiotic through a small plastic tube which is inserted into a vein in your arm.

## How will I care for my PD exit site?

Usually the dressing that is applied following the catheter insertion remains in place for 5-7 days.

You will be taught how to care for the exit site and given the equipment required to do this (sterile cleaning fluid, gauze, plasters and tape).

While healing, it is very important not to get the wounds wet, you will be given information so you can recognise if the exit site is infected.

When the exit site is healed, you will usually start training to do the dialysis treatment. This is approximately 2-3 weeks after the catheter is inserted.

## What are the different types of PD?

The type of PD you have allows for the exchange to be performed either during the day or during the night. The most important thing is to perform all your exchanges as recommended.

### **1. Continuous Ambulatory Peritoneal Dialysis (CAPD)**

In this type of dialysis, you perform the exchanges several times during the day. The dialysis fluid flows into the abdomen, you disconnect the dialysis bag and place a sterile cap onto the end of the catheter. While you are doing your normal activities, the dialysis fluid inside your abdomen will absorb waste and extra water from your body. After a few hours you will drain the fluid with waste products out of your abdomen into an empty bag. Then the process is repeated with a fresh bag of dialysis fluid. Each exchange takes about 30 minutes and this is usually repeated four times a day. Exchanges are simple to do and can be performed in any clean area, almost anywhere.

### **2. Automated Peritoneal Dialysis (APD)**

This type of dialysis uses a machine to do the exchanges while you sleep. You will need to set-up the machine before you go to bed. Most people need to spend 8 to 10 hours attached to the machine every night. This enables the machine to perform an average of three to five exchanges each night.

The dialysis fluid is flushed into your abdomen and taken out automatically by the machine overnight. After spending the night on the machine, some people on APD keep fluid inside their abdomen during the day. Some people will also need to do one exchange during the daytime depending on the amount of dialysis you need.

## **Will I be given a choice of treatment?**

The way you perform PD will depend on what suits your lifestyle, who will be doing the exchanges and what you require in terms of waste and fluid removal. Your PD Team will help you decide on the best treatment for you and will teach you how to do your own PD. Most people can become competent in the exchange technique between 3 to 14 days. The equipment required will be delivered to your home, usually once a month.

## **When will I receive the dialysis supplies?**

Your dialysis supplies will be delivered to your home at the end of your training period. The supplies may be stored in any dry area such as a spare room, garage or shed. The delivery is usually once a month, but if storage space is a problem speak to your PD Team. One month's supply requires approximately the space for a single bed.

## **How will I know which PD bags to use?**

Whether you have CAPD or APD, the dialysis fluid can remove waste. The larger the volume of fluid, the larger the waste removal. The ability for the dialysis fluid to remove water from the body is affected by the amount of glucose (sugar) in the bag. The higher the glucose strength the greater the water removal.

There are three different strengths which are colour coded:

**YELLOW** - 'weak' bag (1.36% glucose)

**GREEN** - 'medium' bag (2.27% glucose)

**ORANGE** - 'strong' bag (3.86% glucose)

You will be required to weigh yourself every day and taught to recognise signs of excess fluid and dehydration. Your PD Team will advise on the size and strength of the dialysis fluid bags to use.

## What problems can occur on PD?

The occurrence of problems and the severity can vary greatly between individuals.

A common problem is constipation and sometimes this makes the dialysis less effective. Constipation can also cause problems with poor drainage of fluid and cause the catheter to flip out of position. It is extremely important to prevent constipation by taking regular laxatives.

One of the more serious problems is infection. This can occur around the catheter (exit site infection) or within the abdomen (peritonitis).

Exit site infection is an infection on the skin where the catheter enters the body. If left untreated this can lead to peritonitis.

Peritonitis is caused by bacteria entering the body through the catheter by touching the connection between the bag of fluid and the catheter without appropriate cleaning, using contaminated equipment or from an infected exit site.

## How can I reduce my risk of PD peritonitis?

Always wash your hands thoroughly with soap and water, and use alcohol gel prior to touching your equipment. Always follow the procedures as you have been taught and don't cut corners. If you touch a part of your equipment that you have been shown **not** to touch, **do not use it** and contact your PD Team for advice.

**Important** - If you think you have an exit site infection (redness, pus, swelling, pain) or peritonitis (cloudy waste fluid, pain, fever, vomiting), **phone your Home Therapies/PD Team immediately**. See the back cover for contact details.

## How do I stay well on dialysis?

By keeping fit and healthy:

- Your muscles can become weak when you have kidney disease so it is important to do regular exercise. Even small amounts of activity will help, especially if performed regularly. Your PD Team can advise what level of activity is right for you.
- Give up smoking if you do smoke.

- Perform PD every day – missing dialysis sessions will reduce the amount of treatment you receive and lead to an increase in the level of toxins in your blood which can be dangerous.
- Keep to the diet and fluid allowances – PD works hard but is not as effective as normal kidneys. A renal dietician will be able to provide you with dietary advice. Many people on PD are able to enjoy a normal diet without too many restrictions. Your PD Team can advise on your fluid allowance. This may change over time as you start to pass less urine.

## **What medicines will I need to take?**

Your medications will be reviewed when starting treatment. The most common types of medicines that are needed are:

- Phosphate binders to reduce bone disease. These are taken with your meals.
- Iron and erythropoietin injections to reduce anaemia.
- Anti-hypertensives to control blood pressure.
- Laxatives to prevent constipation.

## **How will I know if PD is working well?**

Most people who have been on PD for a few weeks, start to feel quite well again. Every 3 months you will be asked to collect your urine and dialysis waste fluid for a full 24 hours. You will also have regular blood tests. These can tell how well the PD is working: how well nourished you are; the condition of your bones; how acidic your blood is, as well as your blood count and iron levels. If your PD is not working well, you may start to get symptoms such as feeling weak and tired, nausea and or lack of appetite. Speak to your PD Team if concerned.

## **Can I go on holiday?**

Yes, one of the advantages of PD is that it helps to maintain your independence. Speak to your PD Team to ensure you're travelling safely and to give them adequate time to arrange enough supplies for the time that you are away.

## Contact details

Home Therapies Team email: <a href="mailto:renalhomedialysis.enh-tr@nhs.net">renalhomedialysis.enh-tr@nhs.net</a>	☎ 01438 284100
Ward 6B, Nephrology (Renal) Ward, Lister Hospital	☎ 01438 285063
Advanced Kidney Care Department	☎ 01438 285255
Renal Access CNS	☎ 01438 284624

## Further information

- NHS website - [www.nhs.uk/conditions/dialysis](http://www.nhs.uk/conditions/dialysis)
- Kidney Care UK - [www.kidneycareuk.org](http://www.kidneycareuk.org)  
Telephone: 01420 541424
- National Kidney Federation - [www.kidney.org.uk](http://www.kidney.org.uk)  
Helpline: 0800 169 09 36
- Kidney Patient Guide - [www.kidneypatientguide.org.uk](http://www.kidneypatientguide.org.uk)
- The UK Kidney Association - [www.ukkidney.org](http://www.ukkidney.org)

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