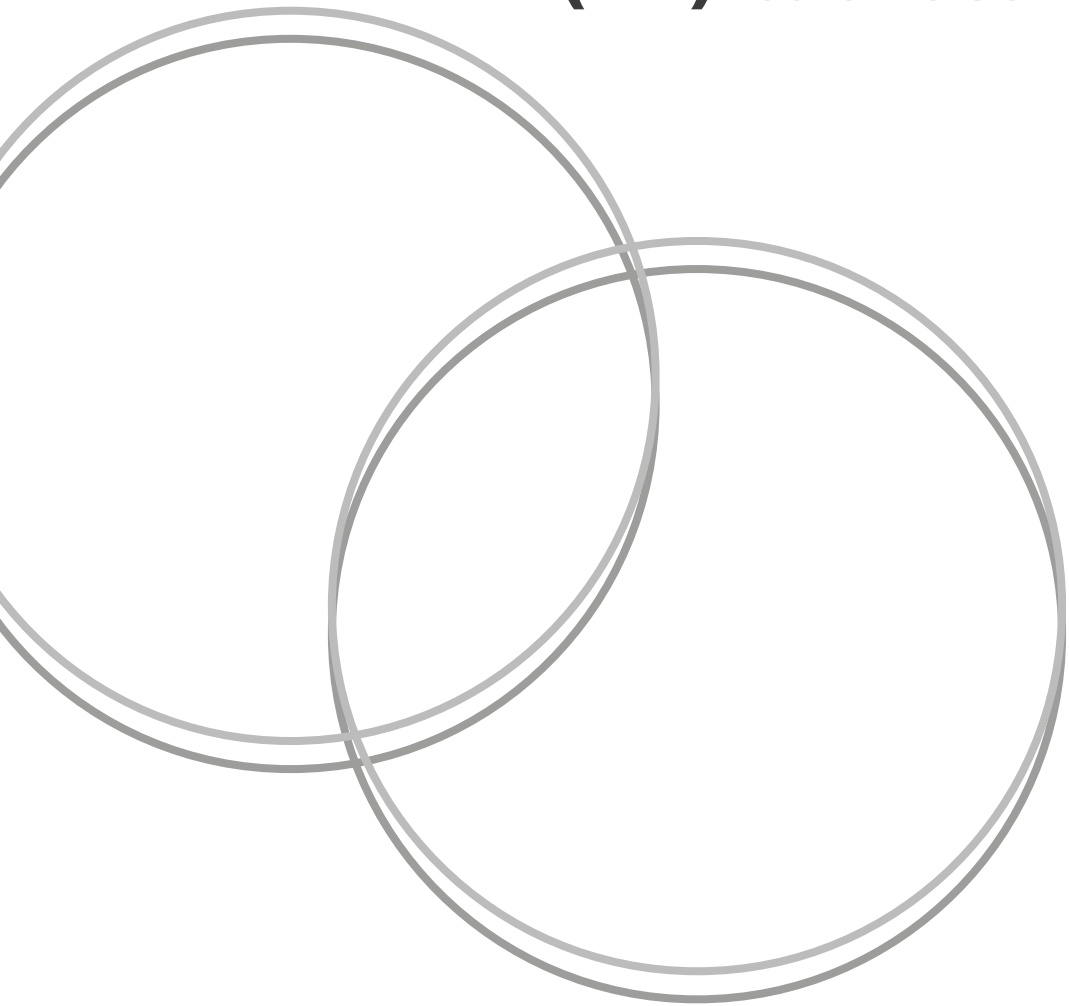
Oxford University Hospitals
NHS Foundation Trust

Renal: Insertion of your Peritoneal Dialysis (PD) catheter



Oxford Kidney Unit

This leaflet will explain what happens when you have a peritoneal dialysis (PD) catheter inserted. If you have more questions after reading it, please talk to a peritoneal dialysis nurse or your kidney doctor.

Why do I need a PD catheter?

You need a PD catheter so that you can have peritoneal dialysis. A PD catheter is inserted into the abdominal cavity. This is carried out as an operation or a procedure.

Your kidney doctor or peritoneal dialysis nurse will have discussed with you whether you need a procedure or operation.

You will usually need a surgical operation if you have had abdominal operations or are overweight.

A medical insertion is carried out under a local anaesthetic and sedation (you are awake but unlikely to remember). Contrast solution (dye) is injected into the abdomen during the procedure to help check that the PD catheter is in the correct position. You will not be able to have a medical PD catheter insertion if you are allergic to shellfish or have had a reaction to contrast in the past.

A surgical operation is usually carried out under a general anaesthetic, you will be asleep.

We will arrange for you to meet with a surgeon in the dialysis access clinic. The surgeon will examine your abdomen and talk about the risks and side effects.

About 2 weeks before the PD catheter insertion you will need to have a preoperative assessment. This is to make sure you are safe to have the PD catheter inserted and let you know how to prepare for the procedure or operation.

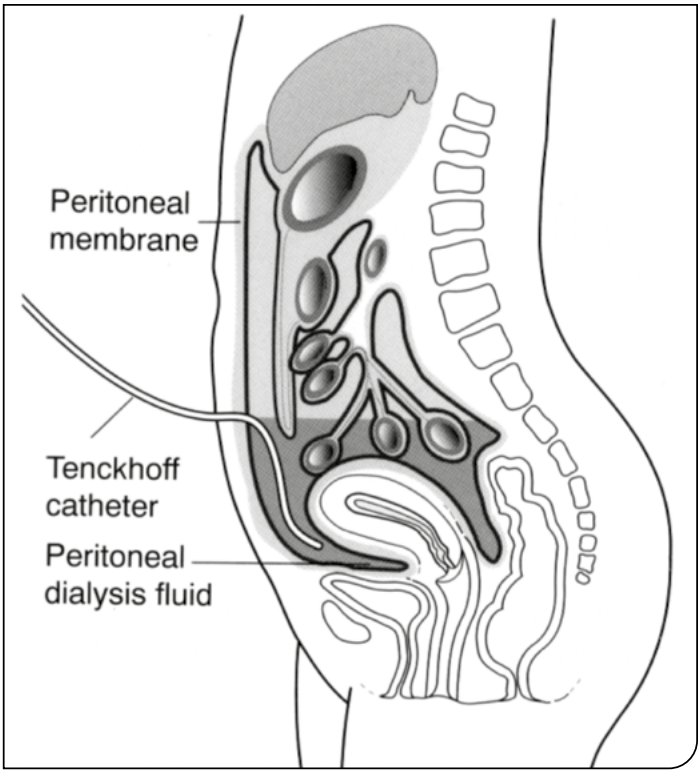
If you are having a medical PD catheter insertion you will meet one of the doctors who is going to do the procedure. They will examine your abdomen, go through the risks and side effects and talk with you about signing a consent form.

What is a PD catheter?

A PD catheter (sometimes called a Tenckhoff catheter) is a special tube that is inserted into your abdominal cavity (space around the organs within your abdomen). The PD catheter is soft to touch and should feel quite comfortable against your body. Special cuffs help to keep the catheter inside your body (you won't be able to feel them); these also reduce the risk of infection.

Sometimes a surgeon may suggest a different catheter that has a weight on the tip of the internal end of the catheter.

If you need to start dialysis, some of the catheter is brought onto the outside of your abdomen. If you don't need to start dialysis yet and are preparing for PD in the future, the catheter can be left inside your abdomen. We will tell you more about this later in this leaflet.



How can I prepare for the operation or procedure?

It is really important that your bowels are functioning well before you have a PD catheter inserted as there is a risk the catheter may not work.

At the home visit or preoperative assessment as nurse will speak with you about getting ready for PD.

They will ask you to start hyfiber. This is a fibre supplement that you take 30mls once or twice a day. If this goes well we will ask your GP to prescribe it for you.

We may ask you to complete a bowel motion chart. A PD nurse will speak with you about this.

We will also give you a leaflet maintaining a healthy bowel when on PD. You can also contact a PD nurse or dietitian if you have any questions.

Medical PD catheter insertion

Please arrive to the Renal Day Case Unit at the Churchill Hospital at 8am. You will need a family member or friend to bring you as you will not be able to drive home.

A nurse will insert a small cannula into a vein in your arm or hand, so that we can give you some intravenous medications. These include:

- antibiotics
- anti-sickness medication.

We will give you some tablets to take which include paracetamol and lorazepam with a small amount of water. Some people feel a little sleepy after taking these.

We will need to scan your bladder after you have passed urine. If there is still some urine in your bladder you may need a urinary catheter whilst we carry out the procedure.

You will be taken to the x-ray department on your bed.

In the X-ray department we will transfer you to the procedure couch, you will need to lie flat with 1 or 2 pillows.

A nurse will attach you to a heart monitor, so we can measure your heart rate, blood pressure, oxygen saturation and respiration rate.

A kidney doctor will then administer a strong painkiller into the cannula.

You may wish to go to sleep, however we will talk to you about what we are doing.

We will then cover you in sterile dressings (over your chest, abdomen and top of your legs). It is really important that you keep your arms by your side.

Your abdomen will be cleaned with an antibacterial solution. Then the skin to the side of your umbilicus will be injected with a local anaesthetic; this will sting for a few seconds and then make the area go numb.

A small cut, about 2cm in length, will be made on your skin in this area. The catheter will be inserted into your peritoneal cavity through this cut. This should not be painful, but you may feel some pushing and other peculiar sensations in your abdomen as the catheter is inserted. This is normal. If you do feel any pain, please tell the kidney doctor or nurse.

When the catheter is in position, a small amount of fluid will be flushed through it to check it is in the correct place. At the end of the procedure internal stitches close the inside of the wound and outside waterproof glue applied to seal the incision. We will place a non-waterproof dressing where the catheter comes out of your abdomen.

The procedure takes about 45 minutes to an hour.

After the procedure you will need to rest in bed for 2 hours. You will need to stay in hospital for about 6 hours after you have had the PD catheter inserted. During this time a nurse will make sure you are comfortable, check the site is not bleeding, that you have passed urine and are eating and drinking normally. If you have a urinary catheter, this will be removed before you go home.

For information on what happens when you go home, please see page 12.

Surgical PD catheter insertion

On the day of the operation you will be admitted to the Day Surgery Unit. This could be at the Churchill Hospital (Oxford) or The Horton Hospital (Banbury). There are two different surgical operations for inserting a PD catheter. A surgeon will have suggested the operation that is best for you.

1. **Laparoscopic insertion (keyhole surgery)**

   2-3 small cuts will be made on your abdomen (each about 7-12mm in length). The surgeon will then use a laparoscopic camera (a very small camera at the end of a thin tube) to look into your abdomen, to see if there is any reason why it would be difficult to insert the PD catheter. They will also use the camera to help place the PD catheter into your abdominal cavity.

2. **Mini laparotomy (open surgery)**

   A small cut will be made 4-5cm below your belly button. The surgeon will insert the PD catheter into your abdominal cavity, through this opening.

In both the operations, fluid will be flushed in and out of your abdomen through the catheter, to make sure it is working. A waterproof glue will be used to cover the operation sites, apart from where the tube comes out of your abdomen; this will be covered with a non-waterproof dressing.

Both operations take about 30 to 40 minutes, with a further 4 hours in the Recovery Unit and Day Surgery Unit.

Risks and complications of a Peritoneal Dialysis catheter insertion

Medical (percutaneous) Peritoneal Dialysis catheter insertion:

- **Discomfort during the procedure**, we will give you more pain relief or local anaesthetic.
- **Damage to surrounding structures**, such as the bladder or bowel. We will scan your bladder to ensure it is empty before the procedure, if you still have urine in the bladder you will need a urinary catheter whilst we do the procedure. Before the procedure we will give you bowel clearance medication the day before surgery to ensure your bowel is as empty as possible.
- The sedation may **make you sleepy** for the day and you may not remember the procedure (or only parts of it).

Medical and Surgical Peritoneal Dialysis catheter insertion:

Immediate

- **Bruising** at the incision site or across the abdomen. This usually disappears within 2 to 3 weeks (common).
- **Failure to complete the procedure**, although rare sometimes we need to stop the procedure, if this happens, we will explain why (uncommon).
- **Pain or discomfort after the insertion.** Mild pain/discomfort is normal following the insertion. You can take paracetamol as prescribed on the packet. If you have severe pain, you will need to go to the hospital (uncommon).
- **Change from laparoscopic insertion to open surgery** (uncommon).
- **Significant bleeding**. If it does happen you will need to seek urgent hospital treatment. In exceptional circumstances you may need a blood transfusion (rare).
- **Bleeding** from the operation site and where the PD catheter exits your abdomen (rare). A small amount of bleeding on the dressing is normal.
- If we are worried about bleeding you may need to stay overnight in the hospital.

Early risks

- **Infection.** Wound infection, peritonitis or exit site infection (rare), we would prescribe you antibiotics.
- **Further procedure needed.** Sometimes the PD catheter can dislodge or migrate out of the lower pelvic cavity. If this does happen you may need a procedure or operation to get the catheter into the correct position (uncommon).
- **Failure to get a functioning PD catheter** (rare). This is usually due to adhesions (scarring) in your pelvic cavity. If you have had previous abdominal surgery, we will use a laparoscope (camera) to look for adhesions. Adhesions are strands of scar tissue. They can trap the PD catheter or stop the flow of PD fluid freely draining in or out of your abdomen.

- **Difficulty passing urine after surgery.** You may need a urinary catheter up to 2 weeks after the surgery (uncommon). This is more common in men.
- **Blood clots**, such as deep vein thrombosis or pulmonary embolism (rare).
- **Damage to surrounding structures.** It is very rare to cause damage to the bladder or bowel, if this happens you may need to have further surgery to repair the damage.
- **Leaking of fluid** from the pelvic cavity to outside of your abdomen. This is more common if you need to start PD earlier than 14 days after the PD catheter insertion.

Late risks

- **Scarring** (common).
- **Developing a hernia,** usually from the incision (cut) site (rare). A hernia may also occur whilst you are on peritoneal dialysis. This can be anywhere on your abdomen or pelvis, you may need an operation to repair this.
- **Pleuroperitoneal leak**, this is a rare condition where fluid seeps from your abdominal cavity through a small defect into the chest cavity (very rare). You may need to stop peritoneal dialysis for a period or have a further procedure.

Anaesthesia side effects

These can be found in the patient information booklet:
“Preparing for an operation, information for people with chronic kidney disease”.

Embedded PD catheter

If you don't need to start dialysis yet, you may be offered an embedded catheter. This is exactly the same process, but, instead of the catheter coming out of your abdomen, it is buried just under your skin (in a downward direction towards your groin).

All of the incisions are covered with waterproof glue. You will not be able to shower or bath for 24 hours after the surgery.

The benefit of having an embedded catheter is that you can have your catheter inserted when you are feeling well and your kidney function is stable.

When you need to start PD you will have a small procedure to bring the end of the catheter out onto the outside of your abdomen (externalise). You can then start peritoneal dialysis within a few days of the catheter being externalised.

Taking care at home

There may be some bruising on the skin of your abdomen, but this will soon disappear. The dressings must be kept dry, so avoid bathing and showering for at least 2 weeks after your operation.

Your dressings will be changed by a PD nurse every week for the first 2-3 weeks. This will be done at your local PD Unit. Please let us know if you need transport to and from the hospital.

Week 1 (about 5 to 7 days after your operation or procedure).

We will change all of your dressings, make sure you are healing well and recovering from your operation or procedure. You will be in the Unit about 40 minutes to 1 hour.

Week 2 (about 12 to 14 days after your operation or procedure)

We will change all of your dressings. If everything has healed well we will teach you how to care for the exit site and advise you if you can start showering.

We will drain some dialysis fluid (about 1 litre) in and out of your abdomen to make sure that it is flowing well. If you are using the overnight PD machine you will also need an APD (automated peritoneal dialysis) trial. This involves a short treatment on the machine so we can check that your catheter is working well.

You will be in the unit about 3 to 4 hours.

We will also provide you with information about starting PD and training at home date.

Driving

You can resume driving when you are pain-free, can wear a seatbelt comfortably, and can perform an emergency stop safely without discomfort or affecting your ability to concentrate.

We suggest you get into your car while it is parked to see if you can perform an emergency stop by stamping on the brake. If you don't feel comfortable leave it for 2 days and try again.

Most people avoid driving between 5 and 7 days after a PD catheter insertion.

Check with your insurance company to ensure you are covered, and inform the DVLA if your inability to drive continues for more than three months.

Going back to work

Most people are advised to take 7 days off work. If you have a manual job, you are more likely to need more time off. You must not lift any heavy items for 2 to 3 weeks.

When will I start PD?

Most people start PD about 3 to 4 weeks after their operation or procedure.

If your kidney function has declined suddenly or you are feeling sick and tired we may start PD earlier. This is usually done in the hospital as a day case 2 or 3 times each week. We can make sure the treatment is working well and that you are not experiencing any side effects.

PD training takes about 3 days, a nurse will be with you for about 6 hours per day. It is carried out in your home. You can also have a family member or friend with you.

Before you start PD we will give you more information on how to prepare for starting PD.

Externalising your PD catheter

This procedure is usually carried out in the Oxford PD Unit by a kidney doctor or surgeon. You will be in the Unit about 3 to 4 hours. You can drive on the day of the procedure and eat and drink as normal.

You will need to have a blood test about 2 weeks before the procedure to make sure your blood is clotting properly. This can be done in your local unit.

We will ask you to lie on a couch and examine your abdomen so we can decide which is the best place for the catheter to come outside of your body.

We will administer some intravenous antibiotics into a vein in your arm or hand. This reduces the risk of developing an infection after the procedure.

We will cover your abdomen with a sterile drape. You will need to keep your arms by your sides.

Your abdomen will be cleaned with an antibacterial solution. The skin around the area where the tube will come out of your abdomen will be injected with a local anaesthetic; this will sting at first but will then make the area go numb.

A small cut (3-4mm in length) will be made on the skin of your abdomen, so your catheter can be gently pulled out. It should not be painful but may be a little uncomfortable. Once it is out, the catheter will be flushed through, to make sure it is working.

The site where your catheter comes out of your abdomen will be covered with a dressing. The PD nurses will take care of the area for the first 2 weeks after the procedure. You will not be able to bathe or shower during this time.

Contact details

Oxford PD unit

Telephone: **01865 225 792**

(7.30am to 6.00pm, Monday to Friday)

Email: **pd.team@ouh.nhs.uk** (between 8.30am and 4.30pm)

Wycombe PD unit

Telephone: **01494 426 349**

(8.00am to 6.00pm, Monday to Thursday)
Email: **RenalHomeTherapiesWycombe@ouh.nhs.uk**

Swindon PD unit

Telephone: **01793 605 288**

(7.30am to 6.00pm, Monday to Friday)
Email: **RenalPDSwindon@oxnet.nhs.uk**

Milton Keynes PD unit

Telephone: **01908 996 495**

(7.45am to 6.00pm, Monday to Friday)
Email: **renalhometherapiesMK@ouh.nhs.uk**

The PD nurses may be visiting people at home, so all units have an answerphone message, which lets you know who to contact if no one is available. If you have an urgent problem, please phone, as the PD nurses may not be able to immediately respond to email.

Renal Ward Churchill Hospital

Telephone: **01865 225 780**

24 hours, including weekends and bank holidays.

Useful websites

Oxford Kidney Unit

Lots of information about the Oxford Kidney Unit for patients and carers.

Website: www.ouh.nhs.uk/oku

Kidney Patient Guide

Information for patients with kidney failure and those who care for them.

Website: www.kidneypatientguide.org.uk

Kidney Care UK

A charity which has lots of practical support and information for people with kidney disease.

Website: www.kidneycareuk.org

Six Counties Kidney Patients Association

The SCKPA is run for patients by patients or family members.

They offer support to people suffering from kidney disease or who are on dialysis. They work closely with the Oxford Kidney Unit and have branches in Oxfordshire, Northamptonshire, Buckinghamshire, and Milton Keynes, and parts of Wiltshire, Gloucestershire and Berkshire.

Website: www.sckpa.org.uk

National Kidney Federation

A charity which has lots of practical support and information for people with kidney disease.

Website: www.kidney.org.uk

OUH Patient Portal Health for Me

Please ask a member of the kidney team to sign you up to the patient portal.

Website: www.ouh.nhs.uk/patient-guide/patient-portal

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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