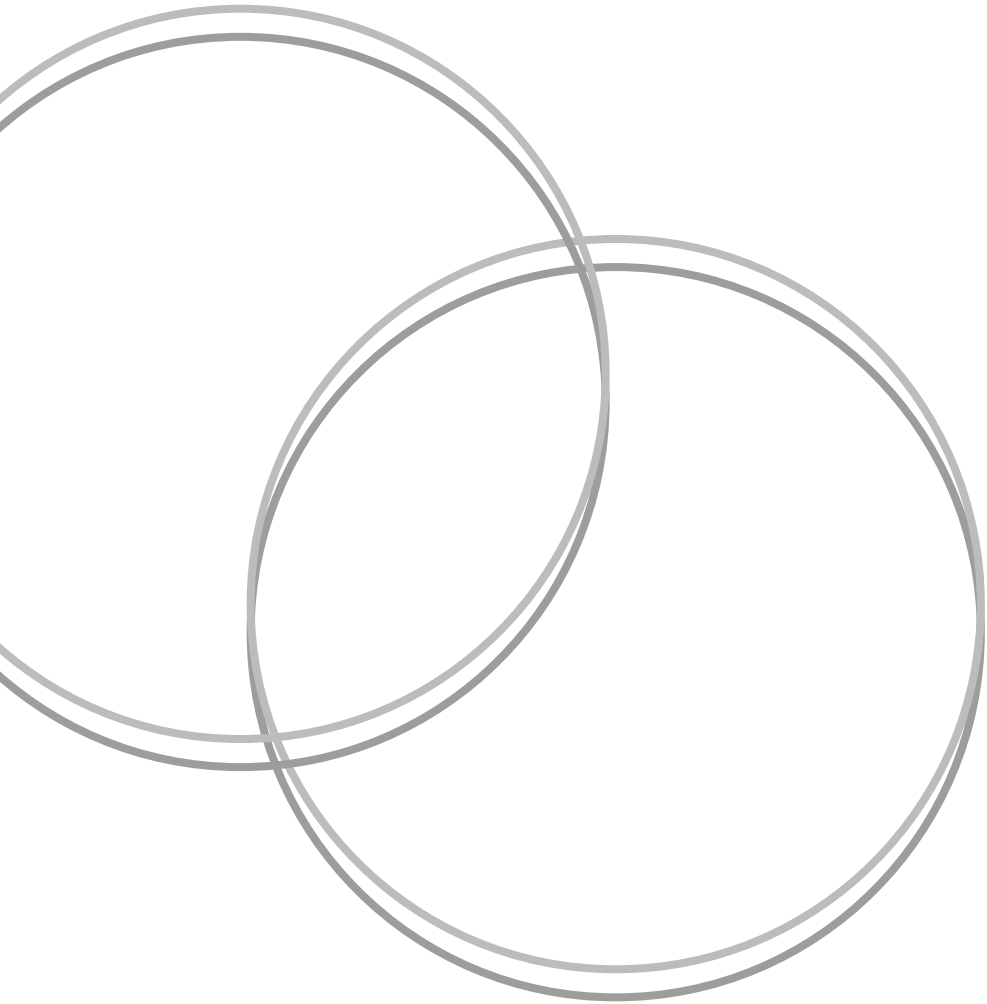
Oxford University Hospitals
NHS Foundation Trust

Renal: Tunnelled haemodialysis catheter

Information for patients



The Oxford Kidney Unit

What is a tunnelled haemodialysis catheter?

A tunnelled haemodialysis catheter (tunnelled line) is needed for haemodialysis or plasma exchange treatment. A clinician will explain why you need a tunnelled line.

A tunnelled line is a soft catheter. It is placed into one of the large central veins at the side of your neck (usually in the internal jugular vein) to enable clinicians easy access to your blood.

A tunnelled line can be used immediately after it is inserted. There is a cuff/s attached to the tunnelled line. You won't be able to see them, they help to keep the line in place. The ends of the tubes are left on the outside of your body, so they can be attached to a haemodialysis machine. You will be able to see them if you look down at your chest.

Whilst a small number of people use a tunnelled line long-term for haemodialysis, these are usually a temporary measure while planning for other types of dialysis access or kidney transplant.

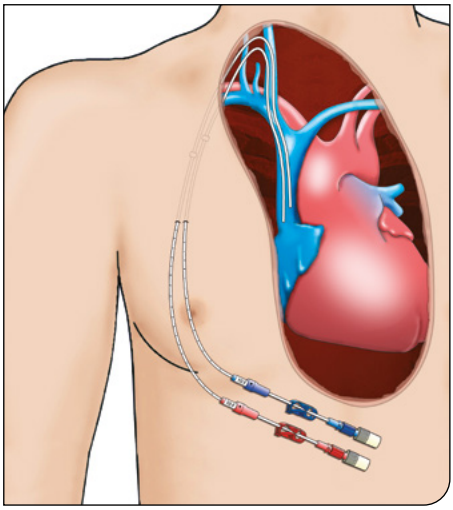
Is there anything I need to know before I have my line inserted?

If you are on any blood thinning medication, such as warfarin, apixiban or clopidogrel, you will need to stop this before your line insertion. **Please speak to a kidney doctor or nurse about stopping blood thinning medications at least 7 days before the procedure**. You don't need to stop any of your other medications.

You will be in hospital all day. You will not be able to drive yourself home after the insertion of a tunnelled line. Please arrange for a family member or friend to bring you in and take you home.

If you need transport please contact the Renal Day Case Unit for advice, the telephone number is on page 11.

What will happen on the procedure day?



© http://www.wgon.co.uk/products/group/renal-catheters

- You will be asked to come to the Renal Day Case Unit at 8.00am.
- If you are already in the hospital the ward staff will speak with you about preparing you for this.
- You will need to wash using special cloths when you arrive in the unit. This helps to reduce the risk of developing an infection.
- If you don't have a recent blood test (within 1 month) you will need one on the day.
- A cannula (small tube) is inserted into a vein in your arm or at the back of your hand so we can give you intravenous antibiotics.
- The procedure is carried out in the Radiology Department.
- An ultrasound machine is used to decide which side of your neck to place the tunnelled line. If the line is inserted on the right hand side then you will need to look to your left. If your line is inserted on the left side you will need to look to your right. You will need to stay in that position throughout the procedure.
- Your neck and the top of your chest will be cleaned with an antiseptic solution (chlorhexidine) and covered with a sterile drape. You will need to lie flat for about 1 and a half hours whilst the tunnelled line is inserted.
- Local anaesthetic will be injected into the skin in your neck and chest wall (the areas where the lines go in and come out of your body). This stings a little but will quickly make your skin go numb.

- A kidney doctor will make a small cut (approximately 2.5cm) at the side of your neck, over the top of the central vein and insert a wire. You may feel some pressure but it should not be painful. During the insertion X-rays will be taken, this helps with the position of the tunnelled line. The wire will be removed and the tunnelled line inserted. The ends of the tunnelled line are placed inside, at the top of your heart. The external part comes out into your chest.
- 2 or 3 stitches are inserted to close the wound in your neck. These will be removed by the dialysis nurses 10-14 days after the tunnelled line has been inserted. A special dressing is placed over the exit site. Another X-ray is taken at the end of the procedure to check the line is in the correct position. An additional device (Statlock) is placed on your skin to help secure the line.
- You may need a short session of haemodialysis after the procedure, this is to make sure the tunnelled line is working well. Sometimes when the tunnelled line is new there can be some problems with the flow of blood through the lines, this should resolve quickly.
- If you have the tunnelled line for plasma exchange or you are going to have an autotransplant nephrectomy operation you will not need haemodialysis.

Risks and complications when a tunnelled line is inserted

Most complications are rare. However, some may require treatment. Please discuss these with your kidney doctor before you sign the consent form.

Bleeding

- Bleeding during and after the procedure – this is likely and you may need a dressing change when you are back on the Ward.
- If you have extreme bleeding during the procedure you may need to have a further blood test and may need a blood transfusion.

Pain

- We will give you a local anaesthetic to numb the area during the procedure. This will last for a few hours after the procedure has finished.
- Pain relief will be given to you afterwards, if you need it.

Pneumothorax – collapsed lung

- An ultrasound machine helps to locate your vein and position the wires and lines, to minimise the risk of puncturing your lung.
- If we puncture your lung, you may need a further procedure to insert a chest drain, to help reinflate your lung.

Puncture of the large vein (very rare)

- If we puncture your central blood vessel you will need emergency treatment and possibly another procedure.

A fast or fluttering heartbeat during the line insertion into your heart (fairly common)

- You will be connected to the heart monitor throughout the procedure, so we can watch your heart rate.
- If you feel unwell during the procedure we may need to stop for a short time and continue once you feel better.

Unable to insert the line

- Although rare, occasionally it is not possible to insert the line. This is usually due to a narrowing or blockage in your vein. This may mean that your procedure will need to be rebooked.

Injury to nerves

- There are several nerves which lie close to the veins in your neck and groin. When the local anaesthetic is injected it may temporarily blocking these nerves. Your shoulder may feel weak or have a numb sensation. In the groin you may experience a weakness or change of sensation over the thigh. If these sensations last more than a few hours you may need further tests to investigate this.

Taking care of your tunnelled line

- A dressing must always cover the exit site. The external part of the line will be secured with a device that helps to hold the tunnelled line in place. The dressing and device will have to be changed weekly. This will be done during your dialysis session. If you are not going to have dialysis, you should make arrangements with Renal Day Case to have this done as an outpatient.
- If the dressing is itchy please report it urgently to the dialysis team. They will change the dressing and may advise you use an alternative dressing. Do not remove the dressing or apply creams, or talcum powder around the line. Although rare, itching can also be a sign of infection. If you see pus (often white or green discharge) through the dressing contact your dialysis unit urgently. **Do not leave it to the next dialysis day.**
- The tips of the lines will be covered with gauze. This must be kept dry, please do not remove the gauze.
- Make sure your tunnelled line is secure at all times. If it is dangling or you pull your line, this may cause infection or in rare situations the line being pulled out.
- The dressings around the insertion and exit sites must be kept dry. If it does get wet there is a risk of infection and the line may need to be removed. You can have a shallow bath.
- You should avoid strenuous exercise for about a week after the procedure.
- When you attend for haemodialysis wear loose fitting clothing so the dialysis nurses can easily handle your line.
- **Do not change the dressing.** Contact your dialysis unit if it needs changing between dialysis.
- Please check your tunnelled line every day and **phone us immediately if you see:**
    - » broken or missing parts
    - » change in the position of the line
    - » blood on the end of the lines
    - » blood on your clothing or bedding

What are the risks of having a tunnelled dialysis line?

The tunnelled line cuffs may be exposed

Speak to your dialysis nurse urgently. You may need to come to the hospital.

Poor blood flow when on haemodialysis

We may be able to give you some medication into the tunnelled line that may help the flow. In some situations you may need a new tunnelled line.

Infection

Redness, swelling, discharge or pus at the exit site. If you have a high temperature, shivering or feeling very cold you may have a blood infection. Contact your dialysis team urgently.

Narrowing of the central blood vessel

A tunnelled line may cause narrowing of the central veins. This may lead to difficulties for further lines or creation of a fistula.

Deep vein thrombosis

If you have a tunnelled line inserted into your groin you have a risk of developing a blood clot near the line. You may need to be prescribed a blood thinning medication to prevent this.

Important information

If you are bleeding from your tunnelled haemodialysis line call 999.

- Call for help and use the blue dialysis clamp provided for you by the haemodialysis team.
- Place you blue clamp just above the split or broken point on the line, squeeze clamp gently until you can feel the clamp holding on to the line. Bleeding should slow down or stop completely.

- **Call 999** and tell them you are bleeding from a tunnelled haemodialysis line.
- Lie down if you feel dizzy or lightheaded.

Make sure you tell your family or friends about your tunnelled line.

What happens next?

If you need to have dialysis long-term your kidney team will talk with you about your dialysis options. This includes haemodialysis at home or peritoneal dialysis at home. If you decide to stay on haemodialysis we will suggest you have a fistula made. This involves joining one of your arteries to a vein, usually in your arm.

You would need an operation before either of these options.

Removal of your tunnelled line

This is usually done on the Renal Day Case Unit at the Churchill Hospital.

If you are on blood thinning medication you will need to stop this before the procedure. Please phone the Renal Day Case Unit for advice, the telephone number is on page 11.

You will be asked to lie on a bed.

The area of skin around the cuff will be cleaned with an antiseptic. A small injection of local anaesthetic solution is injected into the tunnelled line area. This injection stings slightly and then the area should go numb. When it is completely numb, the doctor will make a small cut in your skin to allow the cuffs to be loosened from underneath your skin.

You may feel a bit of pressure, but you should not feel any pain. Once the cuffs are freed, the line should come out easily.

The doctor will gently press where the line went into the vein (under your neck) for a minimum of 5 minutes. 2 or 3 stitches are inserted to seal the cut. A clear dressing will be applied over the wound which should remain in place for 48 hours. You will need to lie flat for a minimum of 1 hours and you will be able to get out of bed after 2 hours.

The stitches will need to be removed in 10 days, these can be removed in your local Dialysis Unit or by the Practice Nurse at your GP Surgery. The Renal Day Case Team will let you know where this should happen.

Contact the Renal Ward or Renal Day Case urgently if you have:

- **Bleeding**, that doesn't respond to 5 minutes of pressure.
- **Redness, swelling or discharge**. You may have an infection.

Useful contact numbers

Renal Day Case Unit

Churchill Hospital
Telephone: **01865 226 106**
8am to 6.30pm, Monday to Friday

Renal Ward

Churchill Hospital
Telephone: **01865 225 780**
24 hours, including weekends and bank holidays

Main Haemodialysis Unit
Churchill Hospital
Telephone: **01865 225 807**

Tarver Haemodialysis Unit
Churchill Hospital
Telephone: **01865 225 695**

Milton Keynes Haemodialysis Unit
Milton Keynes University Hospital
Telephone: **01908 996 496**

Stoke Mandeville Haemodialysis Unit
Stoke Mandeville Hospital
Telephone: **01296 316 996**

Horton Renal Unit
Horton General Hospital
Telephone: **01295 229 811** or **01295 224 130**

High Wycombe Haemodialysis Unit
High Wycombe Hospital
Telephone: **01494 426 347**

Swindon Haemodialysis Unit
Great Western Hospital
Telephone: **01793 605 286**

Whitehouse Dialysis Unit
Whitehouse Health Centre
Telephone: **01295 228 552** or **01295 228 553**

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

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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