



Information about having a haemodialysis line

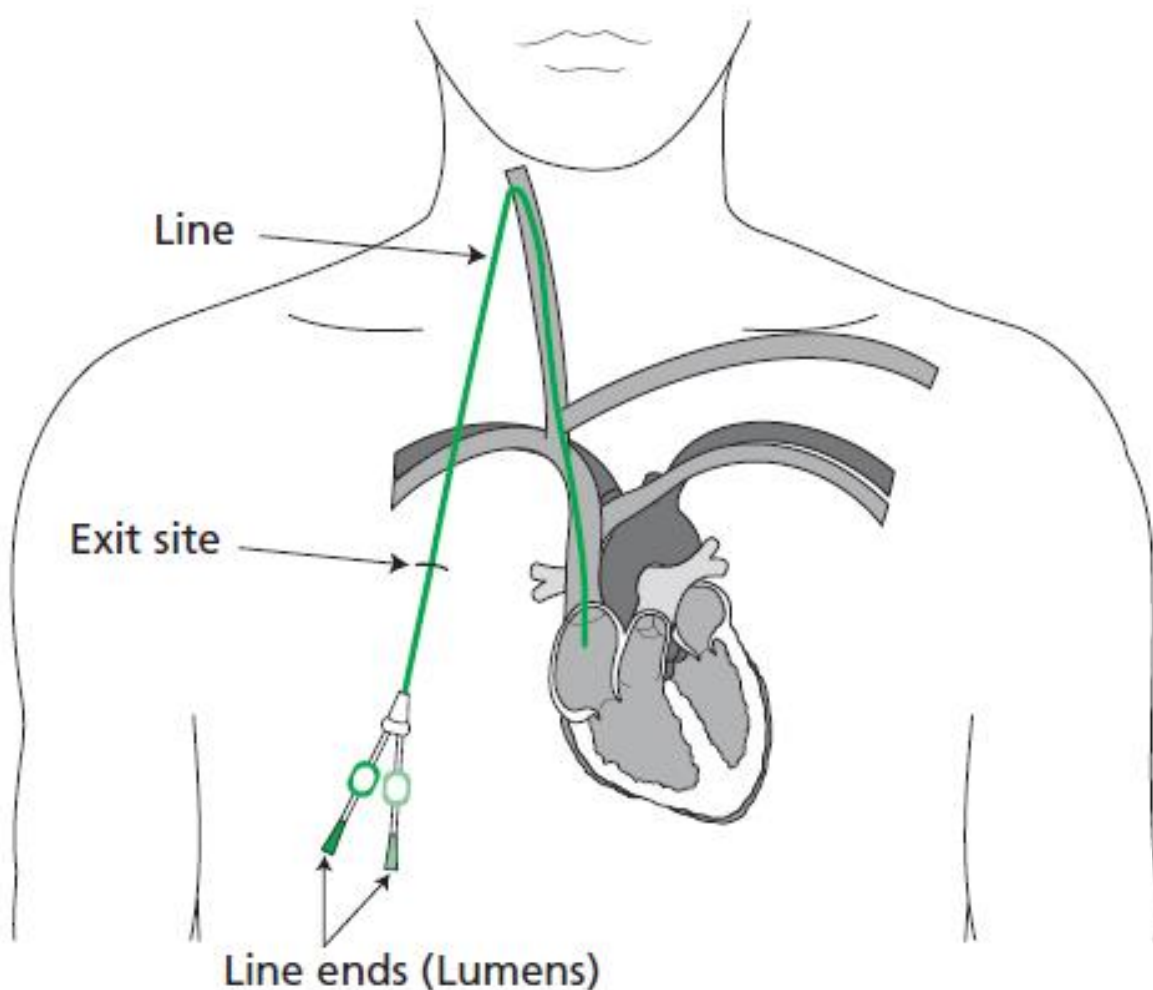
Introduction

This leaflet has been written to give you general information about having a haemodialysis line. The information leaflet does not replace discussion between you and your doctor or nurse. If you have any questions about having a haemodialysis line, please talk to your kidney doctor or one of the nurses.

What is a haemodialysis line?

A haemodialysis line is a thin, flexible plastic tube that is inserted through the skin into one of the large veins, usually in the neck or groin. Once it is in place it can be connected to a haemodialysis machine and allows blood to be pumped from your body through the dialysis machine and back again so that your blood can be cleaned.

Diagram of a haemodialysis line placement



Information for Patients

There are two types of haemodialysis line that we use in the renal unit:

- **Temporary lines:** these are quick to insert and used for short periods of time (usually up to 7 days)
- **Tunnelled lines:** these take a little longer to insert but are embedded under the skin to try to prevent infections. These lines can stay in for longer amounts of time.

What preparation will I need?

The main problem with haemodialysis lines is that they can get infected. Preparation is required to try to reduce the risk of infection.

You will have swabs taken to check for the presence of bacteria, including MRSA (Methicillin resistant Staphylococcus aureus) and MSSA (Methicillin-resistant Staphylococcus aureus).

Staphylococcus aureus is a common germ that is harmlessly carried in the noses or on the skin of many people. Many people who carry the germ have no symptoms and are unaware of it. The same can apply to people who have MRSA on their skin.

People with kidney problems are more at risk of developing infections. It is therefore important to know whether you are carrying the MRSA germ. If you have the germ, you will be given antibiotic cream for your nose and an antiseptic soap solution for you to wash with. The presence of MRSA will be checked for every 3 months while you are on dialysis.

In addition, if you are to have a new haemodialysis line inserted you will need to have a bath or shower using the antiseptic soap solution provided by the hospital or your dialysis unit on the day of the procedure.

For temporary lines, you will be able to eat and drink normally before the procedure as the haemodialysis line is normally inserted using local anaesthetic where you are awake.

If you believe that you may need some extra medicine to make you feel more relaxed, ask your dialysis unit to contact your consultant or discuss with the doctors if you're in hospital. If you need medicine to help you relax you should not eat for 6 hours beforehand. For tunnelled lines in the Queen Elizabeth Hospital the procedure is routinely done with sedation, therefore if you know you are having a tunnelled or permanent line at the Queen Elizabeth Hospital, you should not eat for 6 hours before. Clear fluids can be taken up to 2 hours before the procedure.

Where will the line insertion procedure take place?

Insertion of the line will be carried out at the Queen Elizabeth Hospital or Birmingham Heartlands Hospital.

At Queen Elizabeth Hospital, tunnelled lines are undertaken in the X-ray department, temporary lines are usually undertaken on ward 301 in the renal procedure room.

At Birmingham Heartlands Hospital, insertion of the temporary and tunnelled lines will be carried out at Ward 3 procedure room or in the X-ray department.

You will be told in advance where the procedure will take place.

How long will it take?

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Tunnelled lines normally take about an hour. Temporary lines normally take about half an hour. Unfortunately, we may not be able to give you a set time for your procedure.

How is the procedure performed?

Before the line is inserted you will be asked to change into a hospital gown and put on a hair cap. You will need to lie flat on the bed and expose the area that the doctor has chosen for the line to be placed. The doctor will find and assess your vein using the ultrasound machine. This will not hurt.

Your skin will be cleaned with an antiseptic solution. Local anaesthetic will then be injected into the skin around the vein; this stings a little but will make the skin numb in a few minutes. After this you should not feel any pain but just some pressure as the line is inserted. If you feel any pain let the doctor or nurse know and they will give you some more anaesthetic. If you are having sedation this will be given at the start of the procedure through a needle in the back of your hand.

Once the line is inserted, it is held in place with some stitches and a protective dressing is applied.

What are the complications that may occur at the time of line insertion?

The insertion of a haemodialysis line carries a small risk of complications. The most common are:

- Damage to a vein or artery from the equipment used to insert the line causing bruising, bleeding or swelling. Sometimes there is bleeding around the neck after the insertion that delays you going home.
- **Punctured lung:** this is very rare but if this occurs you may have to have a tube inserted into your chest for a few days to re-inflate your lung. Very rarely you may need an operation to repair the puncture.
- **Large amount of bleeding:** if the line insertion causes a lot of bleeding, you may need a blood transfusion or very rarely an operation to stop the bleeding
- **Unsuccessful line insertion:** sometimes the line cannot be inserted due to a blockage or narrowing of the vein which is only detected during the procedure. If this occurs, the doctor performing the procedure will explain what can be done next. Often the procedure will be rescheduled to take place in the X-ray department by an X-ray consultant, where special screening is available.

It is important to tell the doctor doing the procedure if you have any conditions that cause you to bleed or are taking medicines that affect blood clotting such as warfarin or apixaban, aspirin or clopidogrel, or suffer with any allergies. Normally, warfarin will be stopped a few days before the procedure. The kidney doctor will let you know if you need to stop other medications including aspirin or clopidogrel.

The doctor will talk to you about all these complications before you sign a consent form.

Special instructions

After your line is inserted, you will need to keep the dressing dry. Your dialysis nurse will change your dressing every seven days, please do not try and do this yourself.

Information for Patients

You will have stitches in place after having your line and your dialysis nurses will know when to remove these. Your haemodialysis line should only be used for dialysis treatment. If your dialysis line does not work properly, it may be necessary to place a thrombolytic medicine. Very rarely your line can fall out, if this happens apply pressure and contact the Renal Assessment Unit or the renal registrar immediately.

If a doctor or nurse wishes to use the line for any other purpose, then please refer them to your kidney nurse or doctor.

Contact numbers

If you have a problem with your haemodialysis line, you should inform the nurses at your dialysis unit. If you need more urgent advice, you should contact the Renal Assessment Unit or the on call renal registrar at the Queen Elizabeth Hospital Birmingham or Ward 3 Birmingham Heartlands Hospital on the numbers below.

Renal Assessment Unit- QEH

Telephone: **0121 371 3017 or 0121 371 3024**

The Renal Assessment Unit is available 08.00–20.00 Monday–Friday, 08.00–16.00 Saturday and Sunday.

Ward 3 – Birmingham Heartlands Hospital

Telephone: **0121 424 0203** (24 hours)

Outside of these hours the on-call renal registrar can be contacted by telephone to the Queen Elizabeth Hospital Birmingham switchboard on **0121 371 2000**.

Where can I get further information?

Further information can be obtained from:

The National Kidney Federation website www.kidney.org.uk

NHS Choices website for more information about a wide range of health topics

www.nhs.uk/Pages/HomePage.aspx

Kidney Care UK www.kidneycareuk.org

Queen Elizabeth Hospital Birmingham

Mindelsohn Way, Edgbaston

Birmingham, B15 2GW

Telephone: 0121 371 2000

Birmingham Heartlands Hospital

Bordesley Green East

Birmingham, B9 5SS

Telephone: 0121 424 2000

If you require this information in another format, such as a different language, large print, braille or audio version please ask a member of staff or email patientexperience@uhb.nhs.uk.