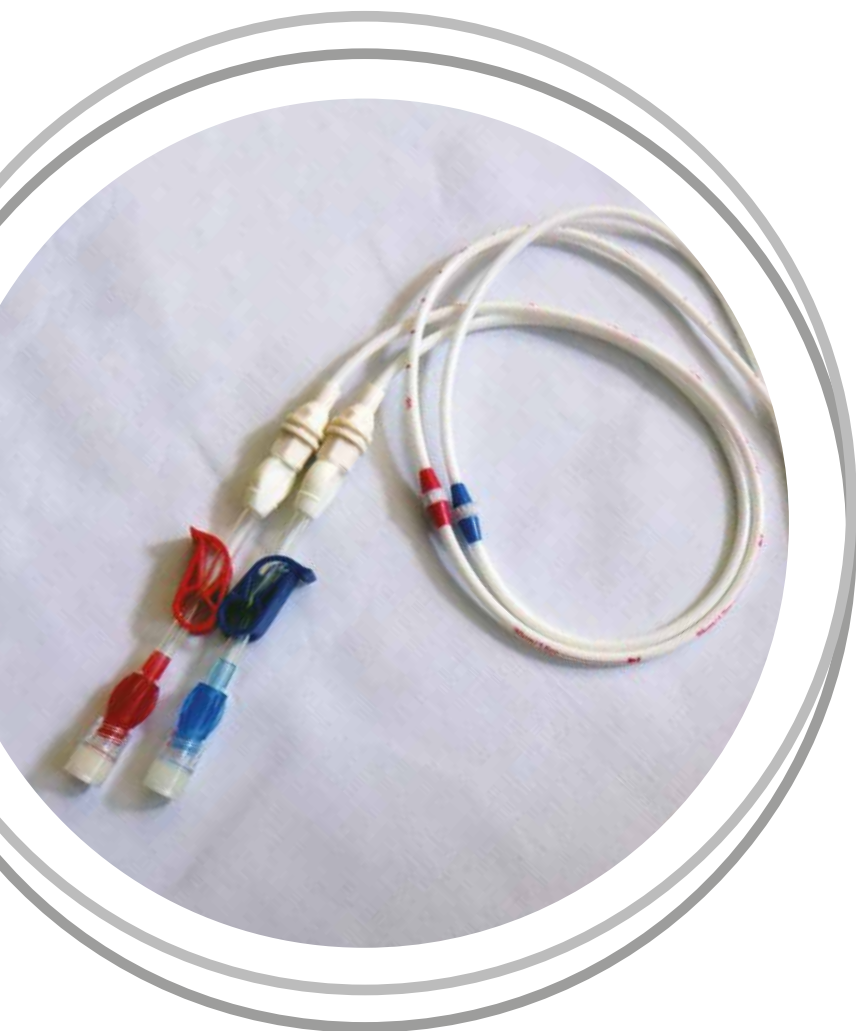


Renal: Care of my Tesio line

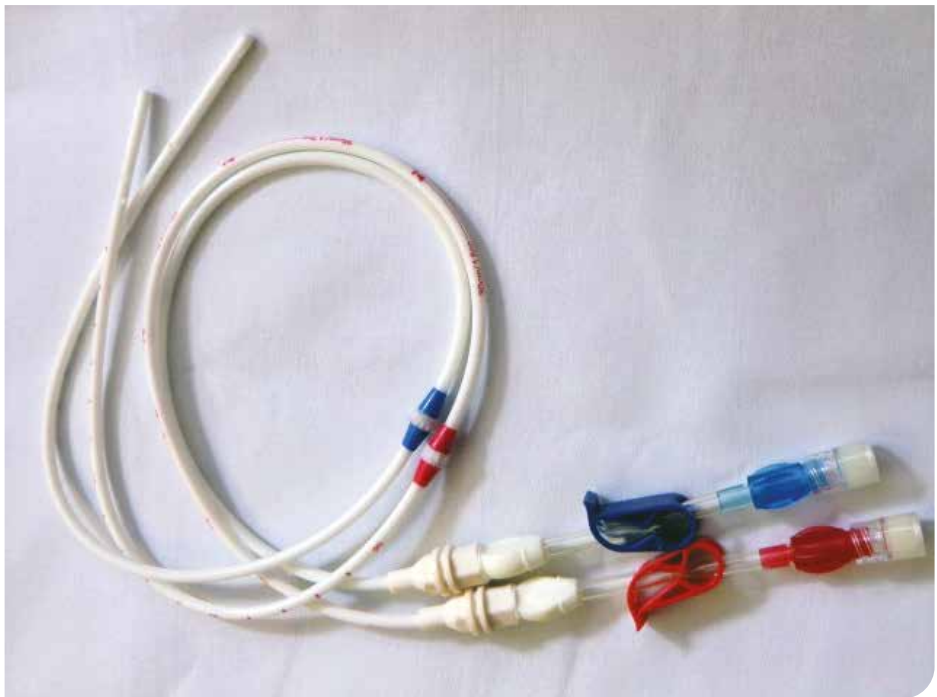


What is a Tesio line?

A Tesio line is a pair of hollow tubes called catheters or lines, which are placed into the large central vein at the side of your neck (usually in the internal jugular vein) for haemodialysis.

A Tesio line can be used immediately after it is inserted. The ends of the tubes are left on the outside of your body, so they can be attached to a dialysis machine. You will be able to see them if you look down at your chest or by looking in a mirror.

Whilst a small number of people use their Tesio line long-term for haemodialysis, these are usually a temporary or 'bridging' type of access.



Why do I need to have a Tesio line inserted?

A Tesio line is the brand of tunnelled lines that we use in the Oxford Kidney Unit. You need to have a Tesio line inserted because you need to start haemodialysis immediately. The vascular access team or your kidney doctor will let you know when you will be having your Tesio line inserted.

How is my Tesio line used?

A dialysis nurse will attach the two ends of your line to the corresponding coloured tubes on the dialysis machine lines. The red (arterial) line removes blood out of your body to be cleaned through the dialyser. The cleaned blood is then returned to your body via the blue (venous) line.

When your dialysis session is finished, the line is flushed with normal saline and then filled or 'locked' with a special solution. This helps to stop clots from forming in the line and can prevent infection.

What happens if I am at home and need to have a Tesio line inserted?

If you are at home and have been told by your kidney doctor or pre-dialysis nurse that you need to have a Tesio inserted, you will be contacted by either your pre-dialysis nurse or vascular access nurse to arrange a date for you to come into hospital.

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. You don't need to stop any of your other medications. This will be discussed with you before you come into hospital. If you are already in hospital, we will stop this medication whilst you are on the ward.
- You may like to have sedation, this will make you sleepy and less aware of what is happening. Your kidney doctor or vascular access nurse will talk with you about this. If you are having sedation, you will need to stop eating four hours before the procedure. You can drink clear fluids until you arrive in hospital. If you are already in hospital and want to have sedation, please do not have any breakfast. We will tell you when to stop drinking.

If you are diabetic and wish to have sedation we will give you further advice about eating and drinking.

- You will be in hospital all day. You will not be able to drive yourself home after the Tesio line insertion and if you have had sedation you must not drive for 24 hours afterwards. Please arrange for a family member or friend to bring you in and take you home.

You should not go home on public transport after this procedure. You will need to be taken home by car. This will be more comfortable for you and also quicker for you to return to the hospital if there are any complications on the journey home. If you need transport please contact the Renal Day Case Unit, their phone number is on page 18.

What will happen on the day?

You will be asked to come to the Renal Day Case Unit at around 8.30am. A nurse will take a sample of your blood to check your clotting and INR level (if you are on warfarin) and you will be reviewed by a doctor.

A small tube (cannula) will be inserted into the back of your hand, so that you can be given an antibiotic. This is to reduce the risk of infection. You may also be given a drug called desmopressin (DDAVP), to reduce bleeding. If you are in hospital, the line procedure will be explained to you by your kidney doctor or nurse.

When you are ready, you will be taken to the Radiology department, where the procedure will be carried out.

How will my line be inserted?

A porter will take you to the Radiology department on your bed. You will then be moved onto a different bed. You will need to lie flat for about 1 to 1½ hours whilst the Tesio line is inserted. A kidney doctor or nurse will insert your Tesio line.

An ultrasound machine will be used to decide which side of your neck to place your Tesio line. If you are having your line inserted on the right hand side then you will need to look to your left. If you are having your line inserted on the left side you will need to look to your right. You will need to stay in that position throughout the procedure. Please let us know if you think you might find this difficult.

If you have had sedation then you may feel sleepy, but you will be aware of what is happening. A vascular access nurse will monitor your heart rate, oxygen levels and blood pressure 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. The drape won't cover your face, as it will be secured and hung up on a drip-stand to create a tent effect.

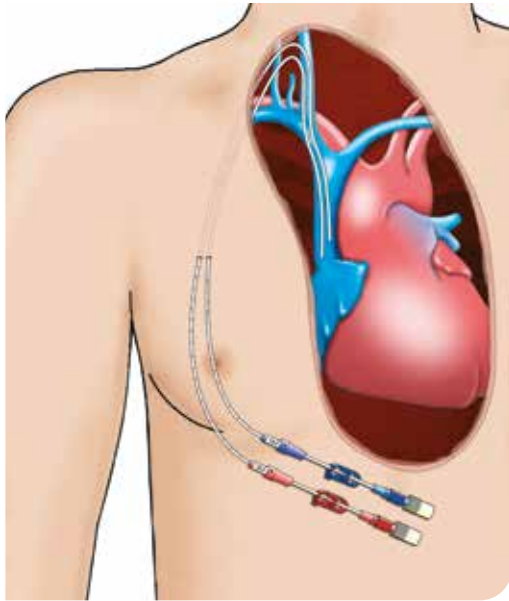
Local anaesthetic will be injected into the skin in your neck and chest wall (the areas where the lines go in and come out of your body). This stings a little but will quickly make your skin go numb.

An ultrasound machine will be used again, to find the central vein in your neck. When this has been located, the kidney doctor will make a small cut (approximately 2.5cm) at the side of your neck, over the top of the central vein.

When your kidney doctor has located your central vein, they will insert two wires into the vein. These help us to plan the positioning of the lines of the Tesio. A radiographer will be called to come into the room to take some pictures with an X-ray machine. This will help the doctor to position the wires in the correct place. With the wires still in place, you will feel some pushing or pressure as we make some space for the tubes to go in. The wires will then be removed and the lines will be inserted.

You will feel some more pushing or pressure when the lines are inserted. If this feels painful please let your doctor or nurse know, as they can give you more local anaesthetic. The radiographer may stay whilst the procedure is being finished, if we need to take more pictures.

The ends of the Tesio line (tips) will be placed at the top of your heart. The other ends of the Tesio will be 'tunnelled' underneath your skin and brought out further down your chest. Another X-ray picture will be taken at the end of the procedure, to check that the lines are in the correct position.



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Are there any risks?

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

Complication

Bleeding throughout the procedure – this is likely and you may need a dressing change when you are back on the Ward.

How is the risk reduced?

We will check your blood clotting levels and your haemoglobin, to make sure it is safe to do the procedure. You should not be taking blood thinning medication such as warfarin or clopidogrel. We will have contacted you asking you to stop this.

What further treatment might I need if I have a complication?

If you have extreme bleeding during the procedure you may need to have a further blood test and maybe a blood transfusion (this is very rare).

Complication

Pain

How is the risk reduced?

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.

What further treatment might I need if I have a complication?

Pain relief will be given to you afterwards, if you need it.

Complication

Pneumothorax – collapsed lung (very rare)

How is the risk reduced?

We use an ultrasound machine to help us locate your vein and position the wires and lines, to minimise the risk of puncturing your lung.

What further treatment might I need if I have a complication?

If this happens you may need a further procedure to insert a chest drain, to help reinflate your lung.

Complication

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

How is the risk reduced?

You will be connected to the heart monitor throughout the procedure, so we can watch your heart rate.

What further treatment might I need if I have a complication?

If you feel unwell during the procedure we may need to stop for a short time and continue once you feel better.

What happens at the end of the procedure?

You will have three or four stitches at the side of your neck, where we made the cut. A dressing will be used to cover these stitches and you will have another dressing over your exit site (where the lines come out of your chest). You will need another chest X-ray to confirm the position of the lines and to check for any complications.

You will then be transferred to the Haemodialysis Unit to have a short session of haemodialysis (up to two hours). This is to make sure the lines are working well. Sometimes when a Tesio is new you may experience some problems with the flow of blood through the lines (it can be a little slow), but this should settle down.

What happens after I have had my Tesio line inserted and tested?

A dialysis nurse will let you know when you need to come back for your regular haemodialysis slots.

If you are an inpatient on the Renal Ward your haemodialysis will be done on the ward. When it is time for you leave hospital, a dialysis nurse or receptionist will let you know which days you will need to come to hospital for your haemodialysis.

How do I look after my Tesio line at home?

After the Tesio has been inserted a see through dressing (chlorhexidine dressing) is placed over it. The dressing covers the exit site at all times. This will be changed when you come for your haemodialysis. We would advise you not to change this dressing yourself at home, as this could cause an infection.

The ends of your line will be held in place by something called a 'stat lock'. This is a device which is stuck to the skin on your chest. The ends of your Tesio will be clipped into the stat lock securely, to prevent them from moving. The stat lock will be changed weekly.

It's important that you wear your stat lock at all times. If you think you might be allergic to the stat lock adhesive or it is irritating your skin, please speak to your dialysis nurse.

When will my stitches be removed?

These will be removed by one of the dialysis nurses 7 to 10 days after your line has been inserted.

Am I able to shower or bathe with my Tesio line?

We advise you not to shower with a Tesio line, as this can put you more at risk of getting an infection. You can have a strip wash (wash with a flannel) or a shallow bath. If you have a bath or a strip wash, please do not let any part of your line or dressings get wet. If you do get your dressings wet, please contact your Dialysis Unit or Renal Ward.

How will the dialysis nurses look after my new Tesio line?

The dialysis nurses will change the dressing at least once a week.

What could happen to my Tesio line?

The table below shows some of the problems that may happen with your Tesio line and what you should do.

What could happen to my Tesio line?

You may see the cuffs (red or blue plastic) of your line or lines at the exit site (uncommon).

What will my dialysis nurses do?

They will tell one of the doctors and the vascular access team.

What should I do if I am at home

Let your Dialysis Unit or Renal Ward know.

What does this mean?

If this happens, you are more at risk of getting an exit site infection. You will be monitored closely and may need your line changing for a new one.

What could happen to my Tesio line?

Your Tesio line may fall out (very rare) or come apart.

What will my dialysis nurses do?

They will inform one of the doctors and the vascular access team.

What should I do if I am at home

If you are bleeding. Apply firm pressure to the site where the blood is coming from for at least 5 minutes.

If your Tesio has come apart, kink the line by bending it back on itself so that blood is not flowing out of the line. Do not let go of it.

If you feel short of breath, Immediately **lie** down on your **left** side. Do not sit up.

Shout for help and dial 999 (tell the operator you dialysis line has fallen out and you are having difficulty breathing).

Contact your Dialysis Unit or the Renal Ward.

What does this mean?

This is usually because the dressing or stat lock is not securing your Tesio. You will need a new Tesio to be inserted.

What could happen to my Tesio line?

Blocked or poor blood flow.

What will my dialysis nurses do?

The nurses will inform the kidney doctor and vascular access nurse. They will assess your fluid balance and your blood pressure. Sometimes poor flows can be due to dehydration. Your dialysis nurse may give you a drug through your line called 'alteplase'. This should help to unblock your line.

What should I do if I am at home

Your dialysis nurses will tell you what to do.

What does this mean?

Sometimes the line can become 'sticky' and may not work very well. This means you will not be getting a very good dialysis and may feel unwell. We will need to change your Tesio line for a new one.

What could happen to my Tesio line?

Redness, swelling or pain at the exit site.

What will my dialysis nurses do?

They will inform one of the doctors and a member of the vascular access team.

What should I do if I am at home

Let your Dialysis Unit or Renal Ward know immediately.

What does this mean?

You may have an exit site infection. A swab of your exit site and a blood test will be taken and you may need a course of antibiotics. If the infection is severe you may need to have your Tesio line removed.

What could happen to my Tesio line?

Pus or fluid from the exit site. You have a temperature or feel unwell.

What will my dialysis nurses do?

They will inform a kidney doctor and a member of the vascular access team.

What should I do if I am at home

Let your Dialysis Unit or Renal Ward know immediately.

What does this mean?

You may have a blood infection, this can be very serious. You will need to be admitted to hospital for intravenous antibiotics and your Tesio line will be removed. This is very rare.

What will happen next?

If you need to have dialysis long-term then your kidney doctor or pre-dialysis nurse will talk to you about your options for dialysis. 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 your vein in usually in arm.

If you decide to do peritoneal dialysis the PD team or kidney doctor will talk with you about what happens next.

You would need an operation before either of these options.

If you have a Tesio line in for a long time, it can cause damage to the veins where the tubes sit. This can result in you having poor dialysis and it may be more difficult to change the line if we need to. Which is why we would advise you to think about removing the Tesio line.

Please speak to one of your dialysis nurses or vascular access nurse for more information about having a fistula created or a peritoneal dialysis catheter inserted.

Removal of your Tesio line

Once you no longer need your Tesio line one of the Renal team will organise for it to be removed. 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 on page 18.

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 Tesio 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 (which stop the Tesio line falling out) 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 will come out easily.

The doctor will gently press where the line went into the vein (under your neck) for about 5 minutes.

We will then insert two or three stitches into your skin.

You will need to rest on the bed for about an hour. If you have any bleeding after the removal you will need to rest for longer.

A clear dressing will be applied over the wound which should remain in place for 48 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.

Useful contact numbers

Main Haemodialysis unit

Churchill Hospital

Tel: **01865 225 807**

Tarver Haemodialysis Unit

Churchill Hospital

Tel: **01865 225 695**

Renal Day Case Unit

Churchill Hospital

Tel: **01865 226 106**

8am to 6.30pm, Monday to Friday

(Please leave non-urgent messages on the answerphone)

Milton Keynes Haemodialysis Unit

Tel: **01908 996 496**

Stoke Mandeville Haemodialysis Unit

Tel: **01296 316 996**

Banbury Haemodialysis Unit

Tel: **01295 229 811** or **01295 224 130**

High Wycombe Haemodialysis Unit

Tel: **01494 426 347**

Swindon Haemodialysis Unit

Tel: **01793 605 286**

Vascular Access Nurses

Churchill Hospital

Tel: **01865 225 910** or **01865 225 373**

8am to 4.30pm, Monday to Friday

(Please leave a non-urgent message on the answerphone).

Renal Ward

Churchill hospital

Tel: **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.sixcountieskpa.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 need an interpreter or would like this information leaflet in another format, such as Easy Read, large print, Braille, audio, electronically or another language, please speak to the department where you are being seen. You will find their contact details on your appointment letter.

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Oxford University Hospitals NHS Foundation Trust
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