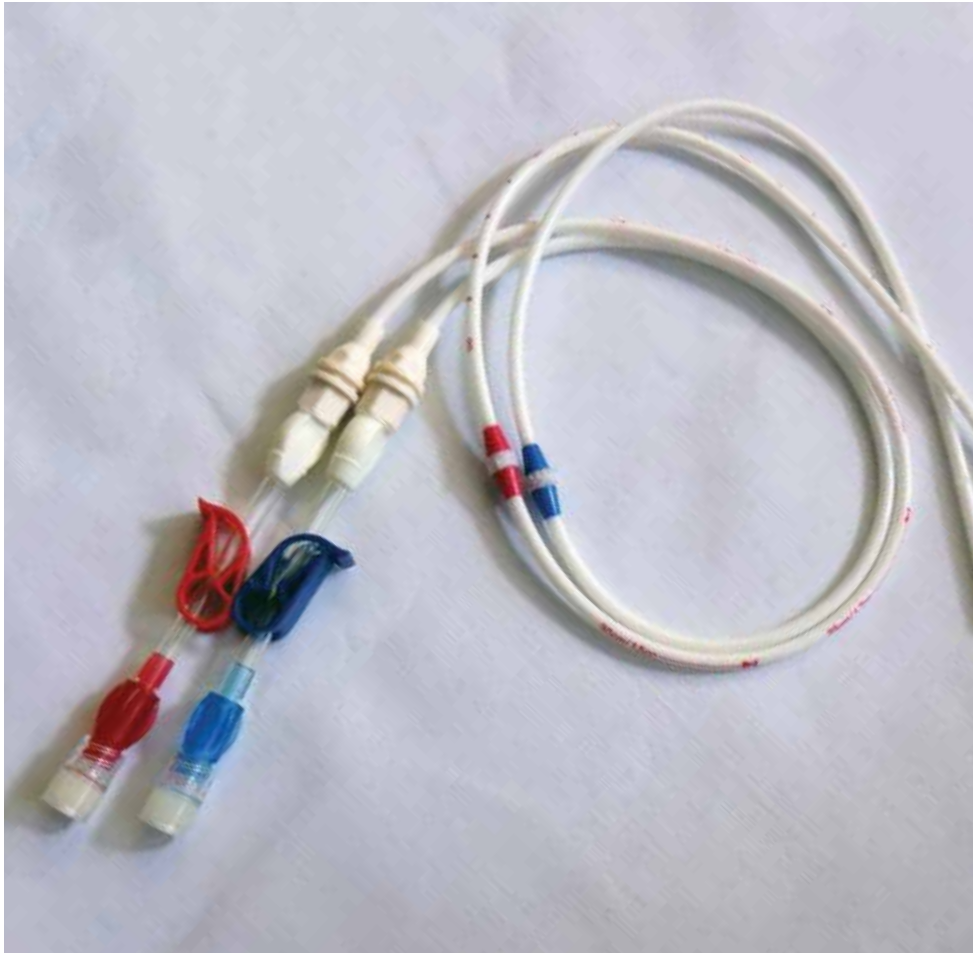


The Oxford Kidney Unit

# Before and after my Tesio line is inserted

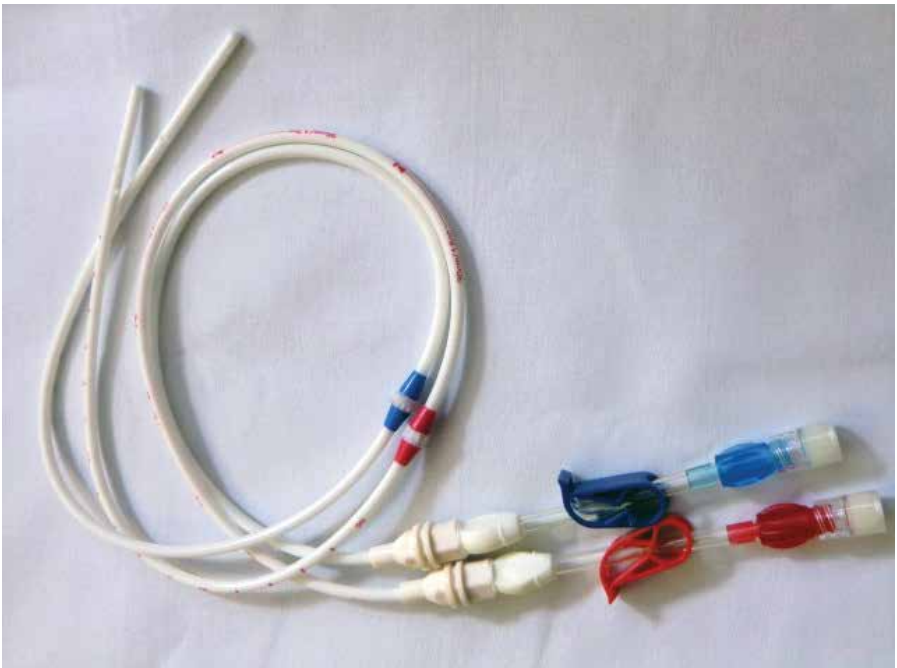


## What is a Tesio line?

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 the 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 pulls 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 will get flushed with normal saline and then filled or 'locked' with a special solution called Taurolock. 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 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. 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.

Please let us know if you wish to have sedation and are diabetic and 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. Please contact the Renal Day Case Unit on the telephone number at the end of this leaflet if you need hospital transport.

## 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 will insert your Tesio line.

An ultrasound machine will be used to decide which side of your neck to place your Tesio line. This will either be on the right or left hand side. 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.

The Tesio line will be inserted under local anaesthetic, which will make the area where the lines are being inserted go numb. You will be awake throughout the procedure. If you have had sedation then you may feel sleepy, but you will be aware of what is happening. One of the vascular access nurses 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.

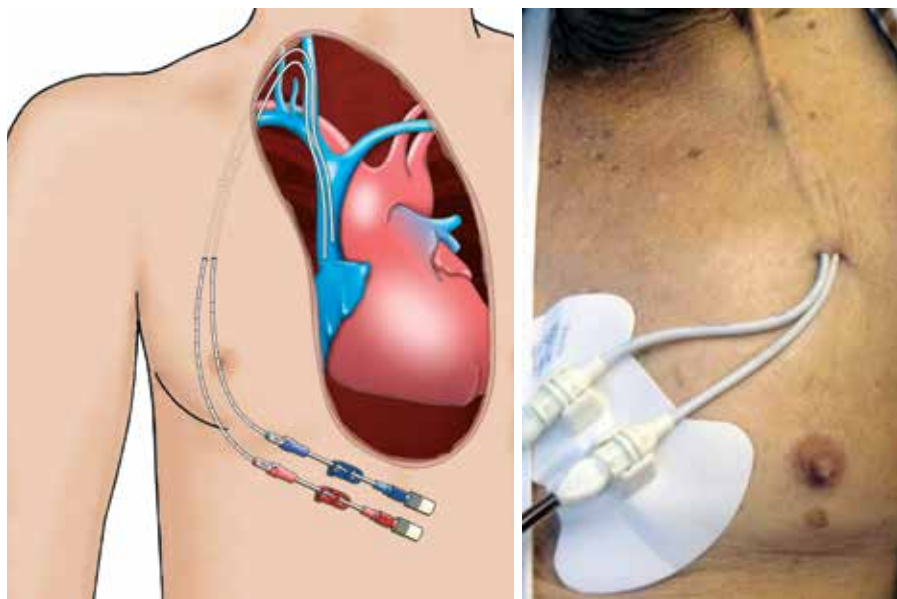
The doctor will inject your neck where they will be inserting the line with a local anaesthetic. They will also inject local anaesthetic on your chest wall, where the ends of the Tesio line will come out. The local anaesthetic will sting at first, but will soon go numb.

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.

| <b>Complication</b>  | <b>How is the risk reduced?</b>   | <b>What further treatment might I need if I have a complication?</b>   |
|--|---|--|
| Bleeding throughout the procedure – this is likely and you may need a dressing change when you are back on the Ward. | 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. | 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). |
| 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 (very rare)  | 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.  | If this happens you may need a further procedure to insert a chest drain, to help reinflate your lung.   |
| 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.                                |



## 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 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 you have your Tesio line inserted, you will have a see-through dressing (chlorhexidine dressing) covering 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.

If you have a shower, please make sure you remove the shower head from the wall (if possible) to avoid your line and dressings getting wet. Please speak to your dialysis nurses for more information about keeping your line dry at home.

You may be able to be taught how to care for your Tesio dressings; please speak to your dialysis nurse if you are interested in this.

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

Your dialysis nurses will clean the exit site and change your dressings for you every time you have dialysis.

## 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.

| <b>What could happen to my Tesio line?</b>   | <b>What will my dialysis nurses do?</b>                           | <b>What should I do if I am at home</b>                | <b>What does this mean?</b>   |
|--|---|--|---|
| You may see the cuffs (red or blue plastic) of your line or lines at the exit site (uncommon). | They will tell one of the doctors and the vascular access team.   | Let your Dialysis Unit or Renal Ward know.             | Sometimes lines move and you may notice that one of your cuffs (blue or red) is visible at the exit site. 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. |
| Your Tesio line may fall out (very rare).  | They will inform one of the doctors and the vascular access team. | Let your Dialysis Unit or Renal Ward know immediately. | This is usually because the dressing or stat-lock is not securing your Tesio. You will need a new Tesio to be inserted.   |

| <b>What could happen to my Tesio line?</b>                              | <b>What will my dialysis nurses do?</b>   | <b>What should I do if I am at home</b>                | <b>What does this mean?</b>   |
|---|---|--|---|
| Blocked or poor blood flow.   | 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. | Your dialysis nurses will tell you what to do.         | 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.           |
| Redness, swelling or pain at the exit site.                             | They will inform one of the doctors and a member of the vascular access team.   | Let your Dialysis Unit or Renal Ward know immediately. | 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. |
| Pus or fluid from the exit site. You have a temperature or feel unwell. | They will inform a kidney doctor and a member of the vascular access team.  | Let your Dialysis Unit or Renal Ward know immediately. | You may have the start of 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 having another type of access. This may be a fistula (a join between your vein and artery) in your arm or peritoneal dialysis (a tube which is inserted into your tummy). 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. This is why we advise you to consider another type of dialysis access.

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.

## Useful contact numbers

|                             |                                |
|-----------------------------|--------------------------------|
| Main Dialysis Unit (Oxford) | 01865 225 807                  |
| Tarver Unit (Oxford)        | 01865 225 695                  |
| Milton Keynes Unit          | 01908 243 280                  |
| Stoke Mandeville Unit       | 01296 315 000                  |
| Banbury Unit                | 01295 229 812                  |
| High Wycombe Unit           | 01494 426 352                  |
| Swindon Dialysis Unit       | 01793 605 286                  |
| Renal Day Case Unit         | 01865 226 106                  |
| Renal Ward                  | 01865 225 780                  |
| Vascular Access Nurses      | 01865 225 373 or 01865 225 910 |

## Where can I find more information?

The website of the Oxford Kidney Unit has information about the Oxford Kidney Unit for patients and their relatives. Here you will find patient information leaflets about fistulas.

Website: **[www.ouh.nhs.uk/OKU](http://www.ouh.nhs.uk/OKU)**

If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call **01865 221 473** or email **[PALS@ouh.nhs.uk](mailto:PALS@ouh.nhs.uk)**

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