

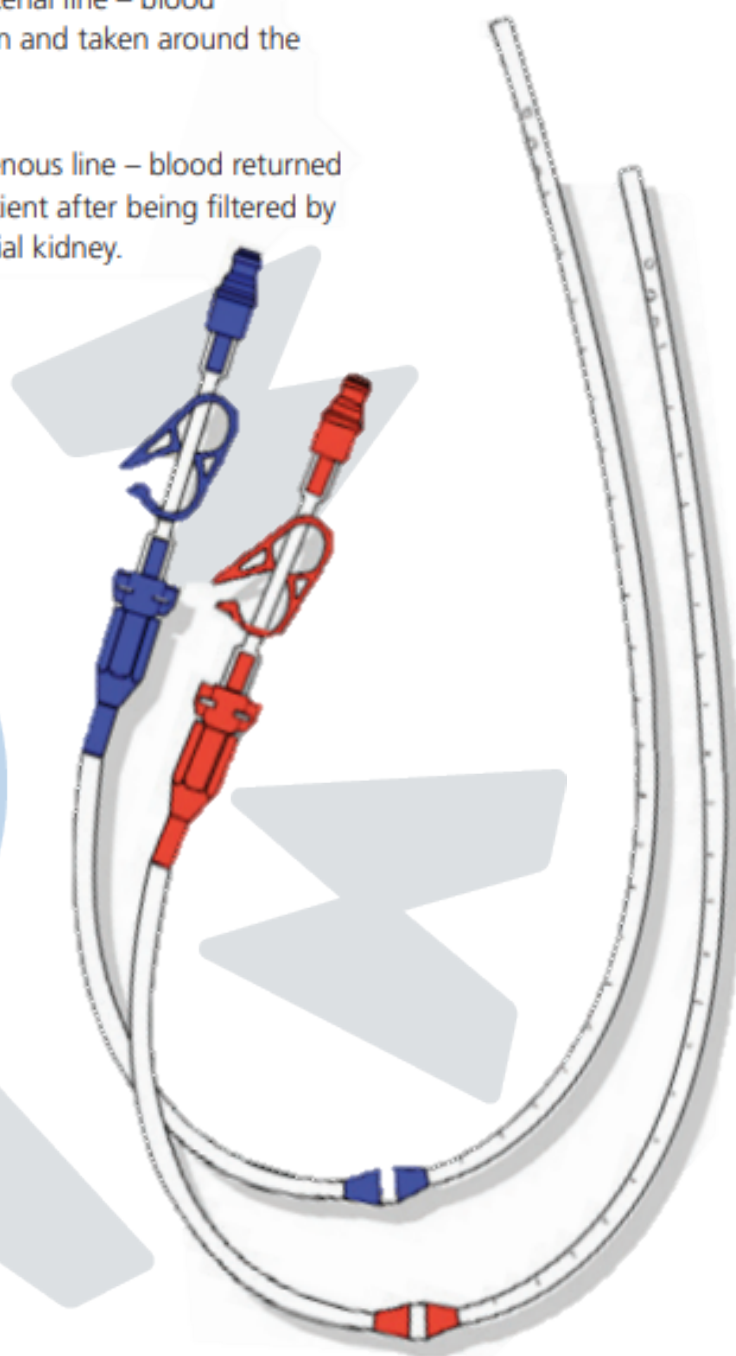
Division of Imaging

Information for Patients

Tunnelled Dialysis Catheter

Red = Arterial line – blood withdrawn and taken around the machine.

Blue = Venous line – blood returned to the patient after being filtered by the artificial kidney.



What is a Tunnelled Catheter?

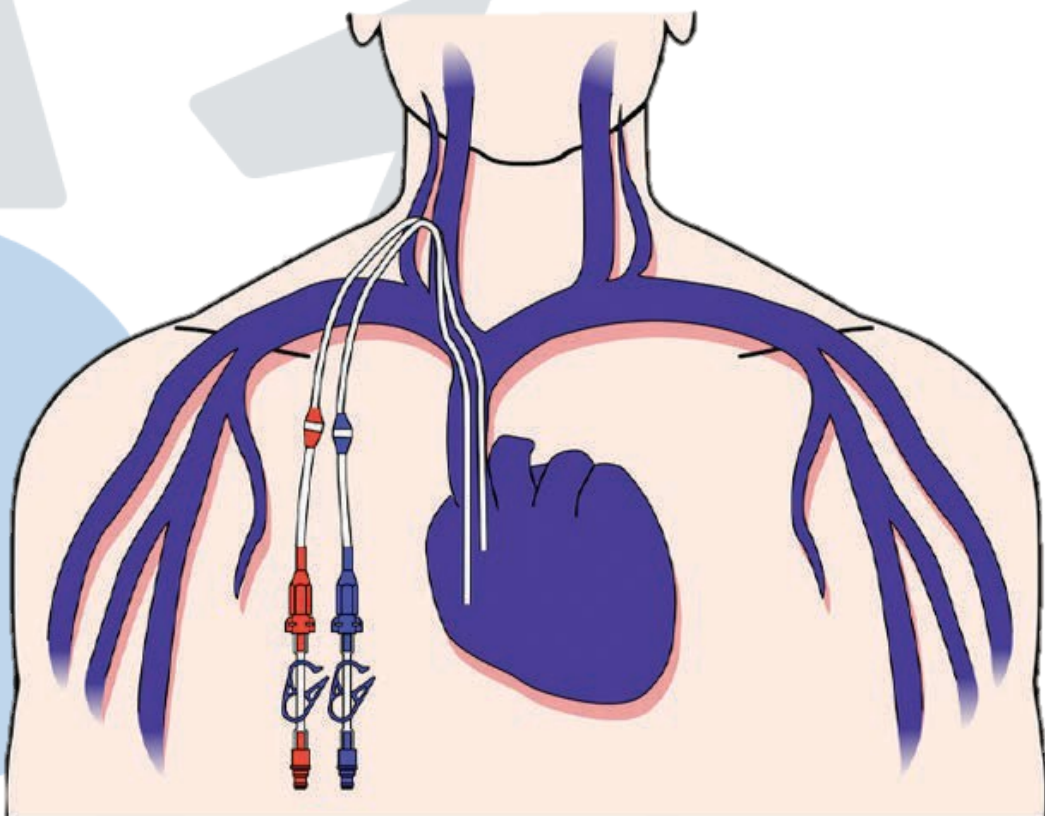
The catheters (dialysis line) are two tubes that are inserted into a central vein (a large vein in your chest) – usually through a vein in your neck – for the purpose of accessing blood for dialysis.

The catheters are inserted in the Radiology (X-ray) Department under local anaesthetic (i.e. you will not be put to sleep, but the area concerned will be numbed).

The catheters are designed to remain in place for an extended period of time, allowing access for dialysis.

Where is the Catheter?

The tunnelled catheter is inserted in a large vein in your chest through your neck, or rarely your groin. The catheter is then 'tunnelled' under the skin, coming out through two small holes in the skin on your chest. The tip of the catheter is left in the large vein that enters your heart. It is placed there because of the large volume of blood flow at that site, which is necessary for dialysis.



How does the Tunnelled Catheter Work?

The Tunnelled Catheters are a pair of tubes that are specifically designed to allow for high blood flows during dialysis. This allows your dialysis treatment to be very efficient in clearing the toxins from your blood.

The catheter is attached to the tubing of the kidney machine during dialysis. One catheter allows blood to be pulled out of your vein into the dialysis machine and the other catheter allows the machine to return your clean blood back into your vein.

After your dialysis treatment, the nurse will inject a locking solution (Citrалock™) into the catheter to prevent the lines from clotting between dialysis treatments.

What Happens During Tunnelled Dialysis Catheter Insertion?

A trained specialist called a Radiographer or Radiologist will perform your tunnelled catheter insertion.

- You may be asked to change into a hospital gown.
- You might be asked to remove certain items of clothing and jewellery.
- The person completing the procedure will ask you to confirm some details including date of birth and pregnancy status.

You will have the catheter inserted while lying on an X-ray table.

The person performing the examination will provide you with instructions on what is needed, and it is often very important that you remain still to ensure the best images are obtained.

Will I Feel Any Pain?

This procedure is performed under local anaesthetic; this is medication which numbs the area in which the operator is working. When the local anaesthetic is injected, it may sting for a few seconds.

It is important to get you into the correct position. Holding this position/lying on a table may, for some people, feel uncomfortable, but for the majority of patients this is not the case.

Benefits of Having the Catheter

- Can be placed into several sites – means lots of different veins available.
- Immediately available for use for dialysis.
- No venepuncture necessary once the tunnelled catheters have been inserted.
- Allows fistula time to mature (AV fistulae take approximately 8 weeks to develop before they can be needed).
- Resting CAPD: patients who have had infections; are post-transplantation or have a failing transplant.
- Reduced risk of infection (relative to non-tunnelled lines) due to being tunnelled under the skin.
- Cosmetic advantage: the lines are hidden under your clothes on the chest wall.

Are There Any Risks With This Examination?

Radiation Risk

Interventional procedures use ionising radiation to form images of your body and provide treatment. Ionising radiation can cause cell damage that may, after many years or decades, turn cancerous.

Radiation exposure during interventional procedures is generally regarded as low but higher radiation doses might be necessary in difficult or complex cases.

We are all at risk of developing cancer during our lifetime. The normal risk is that this will happen to about 50% of people at some point in their life. Having this procedure will increase the chances of this happening by a very small amount.

In some higher radiation dose procedures, there can be a risk of skin damage in the localised area, similar to sun burn. If we think that you are at risk of this, we will inform you before you leave the department.

The radiologist and radiographer will keep the X-ray dose as low possible. The radiologist (doctor) will discuss the procedure, including the risks and benefits, with you and you will be able to ask any questions.

Contrast Risk

We might need to give you contrast dye to make areas of your body show up more clearly.

The radiographers will complete a checklist to ensure it is safe for you to have the dye and you will be asked to sign this form as a consent, the specific side effects are documented on the checklists that you complete.

The contrast dye that is sometimes used can cause allergic reactions however the staff available will be checking for any risks before we proceed.

Is there anything I need to inform you of before I attend for my appointment?

Pregnancy:

Radiation can be harmful for an unborn baby. If you are or think you may be pregnant you must tell the radiographer before the examination.

For some examinations the radiographer may check your pregnancy status with you before the examination.

Each examination request will be checked by the Radiographer/Radiologist to make sure it is properly justified and necessary.

How do I prepare for my Tunnelled Dialysis Catheter?

Sometimes we will advise you not to eat or drink before your procedure. Your appointment letter will tell you how long before your examination to stop or if you are an inpatient, the medical on the ward will take care of the preparations.

If you are taking any medications, please continue to take these as usual unless you have been told otherwise by your doctor. If you are taking Metformin and have poorly functioning kidneys, please contact the department to review this as you may be asked to stop taking this medication 48 hours prior to your appointment.

Clothes and Accessories:

There are some clothes that can affect the quality of the x-ray and you may be asked to remove them and wear a hospital gown.

If you do not wish to change into a hospital gown then please do not wear clothing with zips, metal, buttons on that are made from thick material.

You may also be asked to remove jewellery, dentures, glasses and any metal objects or clothing that might interfere with the x-ray images.

Help and support in the department

If you have any medical problem which you feel may affect your safety in the department, or if you feel you may need any assistance, please let us know when you arrive.

Do I Need to Give my Permission (Consent)?

The operator will ask you if you are happy for the examination to go ahead and sign a form: this is called informed consent.

If you do not wish to have the examination or are undecided, please ask the operator so that they can answer any questions you may have.

Remember, it is your decision. You can change your mind at any time and your wishes will be respected.

How Long Will It Take?

Usually, the examination takes up to 30 minutes to 1 hour.

Dos and Don'ts of Catheter Care

Dos:

- Keep the catheter insertion site clean and dry until it is completely healed.
- Keep the exit site clean and dry, particularly after showering.
- Tell your nurse or doctor immediately if you have pain, redness or swelling at the exit site of the catheter.
- The exit site needs dressing once a week although some patients may not need a dressing.

Don'ts:

- Don't pinch, poke, bend or pull at your catheter.
- Don't use sharp objects around your catheter.
- Don't get your catheter wet (shower, swimming) until you check with your dialysis nurse.
- Don't use an alcohol-based solution to clean your catheter as it can cause it to become brittle



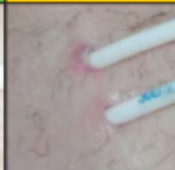



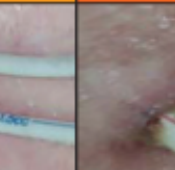


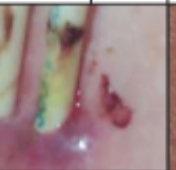
What Should I do if I Have a Problem?

Infection Signs: You may have fever, chills, swelling, oozing at the exit site, redness or tenderness. You may feel unusually tired or have nausea or vomiting.

What to do: Call your dialysis unit if you are at home, you may have an infection and may need antibiotics.

If you dialyse through a catheter the nursing staff will regularly check the skin around this for any signs of infection. A tool named MR VICTOR (Multi Racial Visual Inspection Catheter Tool Observation Record) is used to score the level of infection and alert senior staff to start treatment.

MR VICTOR - Multi Racial Visual Inspection Catheter Tool Observation Record

White/Pale/Asian Skins				African/Caribbean/Asian Skins					
Inspection		Action		SCORE		Inspection		Action	
Central venous exit site appears healthy Dressing intact	No signs of infection Observe daily Document			0		Central venous exit site appears healthy Dressing intact	No signs of infection Observe daily Document		
The following signs may be evident: Slight redness around exit site Slight pain around the exit site	Possible signs of infection: Observe exit site Dressing intact Document			1		The following signs maybe evident: Darker/Shiny/Dull skin Slight pain Hot to touch Slight redness around exit site None of the above may be apparent Ask the patient if the exit site is hot or painful	Possible signs of infection: Observe exit site Dressing intact Document		
The following signs may be evident: Redness Pain Swelling along exit site Pyrexia	Early signs of infection: Take dressing down Swab exit site Redress Inform nurse in charge Inform SpR or above to initiate treatment Document			2		The following signs maybe evident: Darker/Shiny/Dull skin Pain Hot to the touch Pyrexia Slight redness around exit site None of the above may be apparent Ask the patient if the exit site is hot or painful	Early signs of infection: Take dressing down Swab exit site Redress Inform nurse in charge Inform SpR or above to initiate treatment Document		
The following signs may be evident: Redness Pain Swelling/Tracking along exit site Exudate/Pus Crusting Pyrexia	Advanced signs of infection: Take dressing down Swab exit site Redress Await result Inform nurse in charge Inform SpR or above to initiate treatment Document			3		The following signs maybe evident: Darker/Shiny/Dull skin Pain Hot to touch Golden crusting Pyrexia Slight redness around exit site Swelling/Tracking along exit site None of the above may be apparent Ask the patient if the exit site is hot or painful	Advanced signs of infection: Take dressing down Swab exit site Redress Await result Inform nurse in charge Inform SpR or above to initiate treatment Document		
The following signs may be evident: Redness Pain Swelling/Tracking along exit site Exudate/Pus Crusting Oedema Pyrexia, Chills, Rigors, Raised WCC Raised CRP	Severe signs of infection: Take dressing down Swab exit site Redress Take blood culture central or peripheral sample Inform nurse in charge Inform SpR or above to initiate treatment Commence IV antibiotics Refer for removal of catheter Document			4		The following signs maybe evident: Darker/Shiny/Dull Skin Pain Hot to touch Swelling/Tracking along exit site Exudate/Pus Golden crusting Pyrexia, Chills, Rigors Raised WCC Raised CRP Swelling/Tracking along exit site	Severe signs of infection: Take dressing down Swab exit site Redress Take blood culture central or peripheral sample Inform nurse in charge Inform SpR or above to initiate treatment Commence IV antibiotics Refer for removal of catheter. Document		

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Designed by D. Waterhouse, J Winterbottom 07/2008

www.mrvictorvtool.com

If you would like to be trained to check your own catheter for infection using this tool please ask a senior nurse on your haemodialysis unit.

Bleeding from the catheter

Signs: Blood leaking from the catheter. Bleeding from the exit site or neck after catheter insertion.

What to do: Stop the bleeding by pinching, clamping or tying off the end of the catheter. Apply pressure to the point at which the line enters the vein, regardless of where the blood is coming from. Although blood may come from the line exit-site, this is often tracking from the puncture site.

Go to your nearest Accident & Emergency Department if there is any bleeding from your catheter.

Additional Information for Nursing Homes and Carers

Dos:

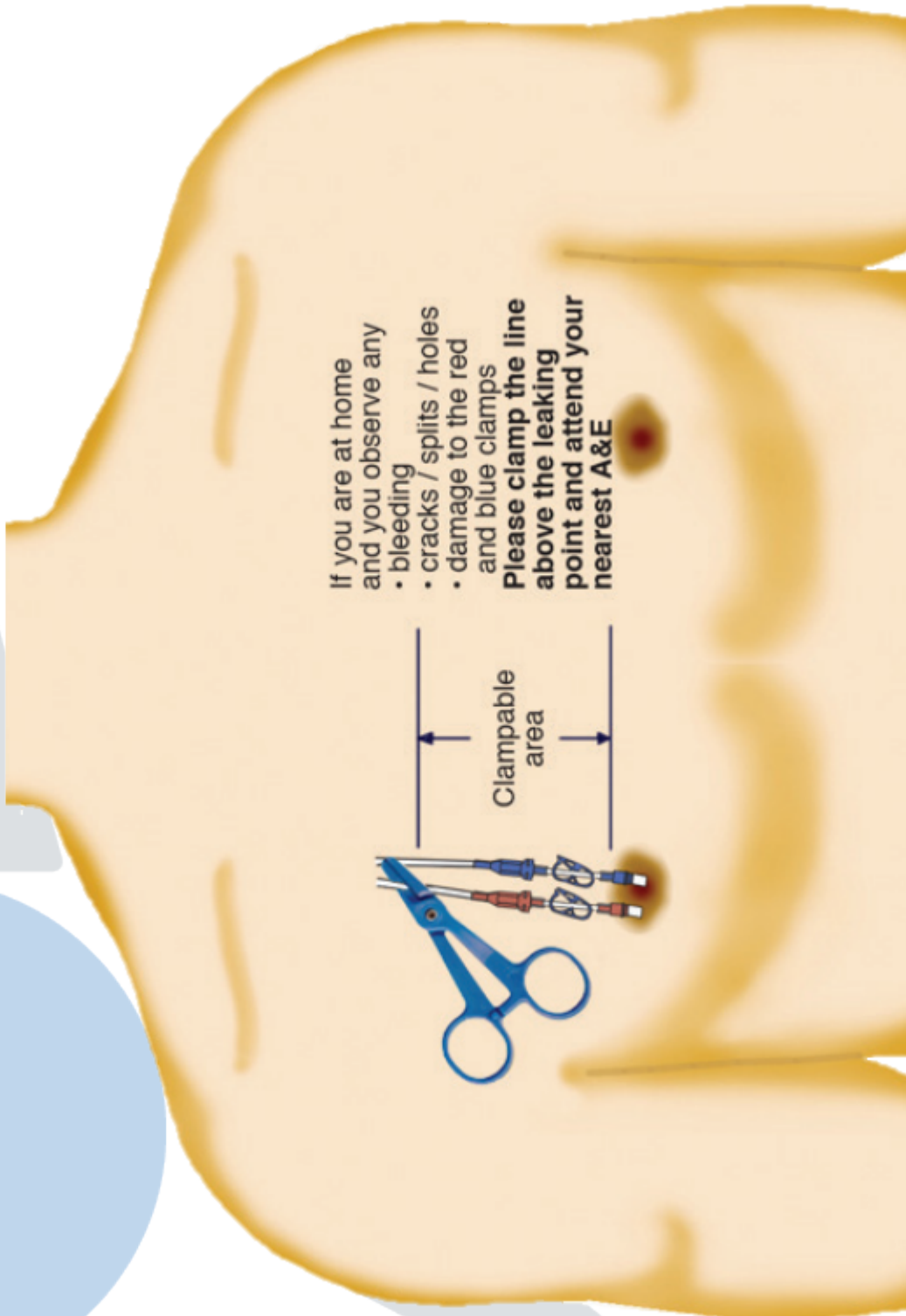
- On dialysis days please ensure that the patient wears clothes that allow easy access to the dialysis line.
- Inform the patient's dialysis unit if the line looks red, if there is any swelling or pain over the line.
- If the patient's dressing falls off, place a clean, dry dressing over the dialysis line and inform the dialysis unit.
- If the bungs/ white caps at the end of the dialysis line fall off, inform the patient's dialysis unit immediately.
- Inform the dialysis unit if there is any sign of blood leakage from the dialysis lines as this may indicate a damaged or cracked dialysis line.
- If you have any concerns regarding the patient's dialysis line, please contact the patient's dialysis unit.

Don'ts:

- The patient should not bathe or swim: only shower when a dialysis line is in situ.
- Do not touch the lines or clamps of the dialysis line unnecessarily.
- When providing personal hygiene care for the patient please do not use talcum powder on or near the dialysis line.

How Can I Provide Feedback for the Appointment I Have Attended Today?

The Division of Imaging welcomes feedback from all our patients. We actively take part in the Friends and Family Test, and we complete a patient experience questionnaire every month to obtain feedback on the experiences you have had. Please speak to a member of staff regarding the feedback or there are posters within the department with QR codes so you can complete these online.



Contact Us

For contact information please refer to your appointment letter or if you are an inpatient, please direct your queries to one of the medical staff on the ward.

Language and accessible support services:

If you need an interpreter or information about your care in a different language or format, please get in touch.

Your comments and concerns

If you would like to provide feedback you can:

- Ask to speak to the department lead / manager.
- Write to us: Patient Advice and Liaison Services, 1st Floor, Cobbett House, Manchester Royal Infirmary, Oxford Road, Manchester, M13 9WL.
- Log onto the Patient Opinion website www.patientopinion.org.uk/ click on 'Tell your Story'

If you would like to discuss a concern or make a complaint:

Ask to speak to the department manager – they may be able to help straight away. Inpatients can speak to a senior nurse or manager by contacting the Tell Us Today service on (0161) 701 1999.

Contact our Patient Advice and Liaison Service (PALS) on (0161) 276 8686 email: pals@mft.nhs.uk. Ask for our information leaflet.

We welcome your feedback so we can continue to improve our services.

NHS 111

This service offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

Telephone: 111, 24 hours a day

Website: www.111.nhs.uk

Finally

Some of your questions should have been answered by this leaflet but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Further information can be obtained by contacting the radiology department that is performing the procedure. Do satisfy yourself that you have received enough information about the procedure, before you sign the consent form.