

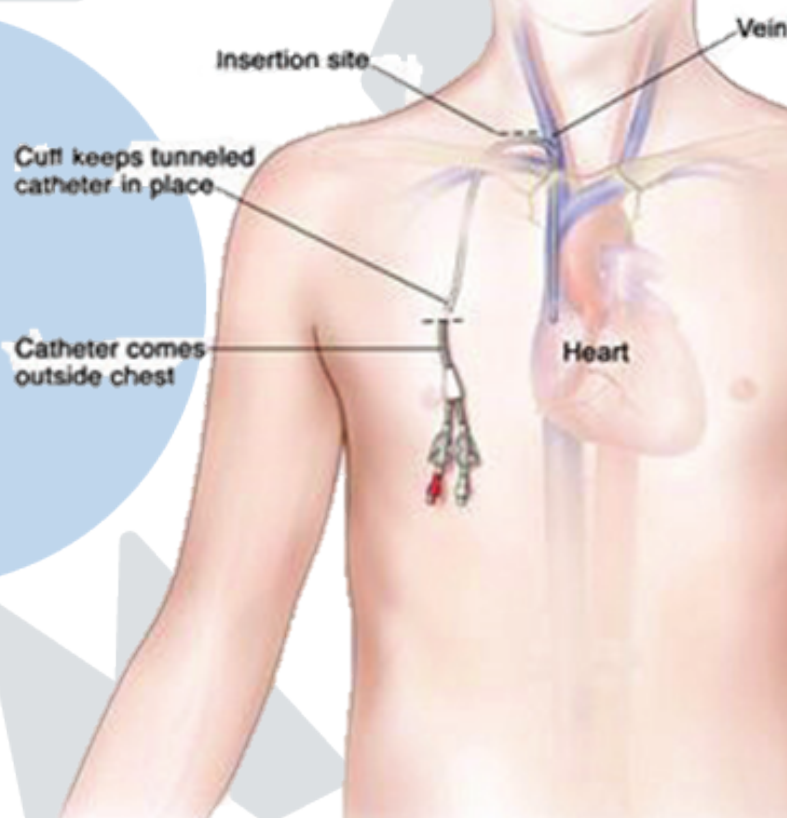
Division of Imaging

Information for Patients

Tunnelled Central Venous Catheter

Introduction

This information booklet has been produced to answer any questions about the tunnelled line you have been referred for. It explains the risks and benefits of having a tunnelled line, and outlines what to do should there be any problems. If you need any further information, or clarification of anything in this booklet, please do not hesitate to contact the team who provide your care.



What is a Tunnelled Catheter?

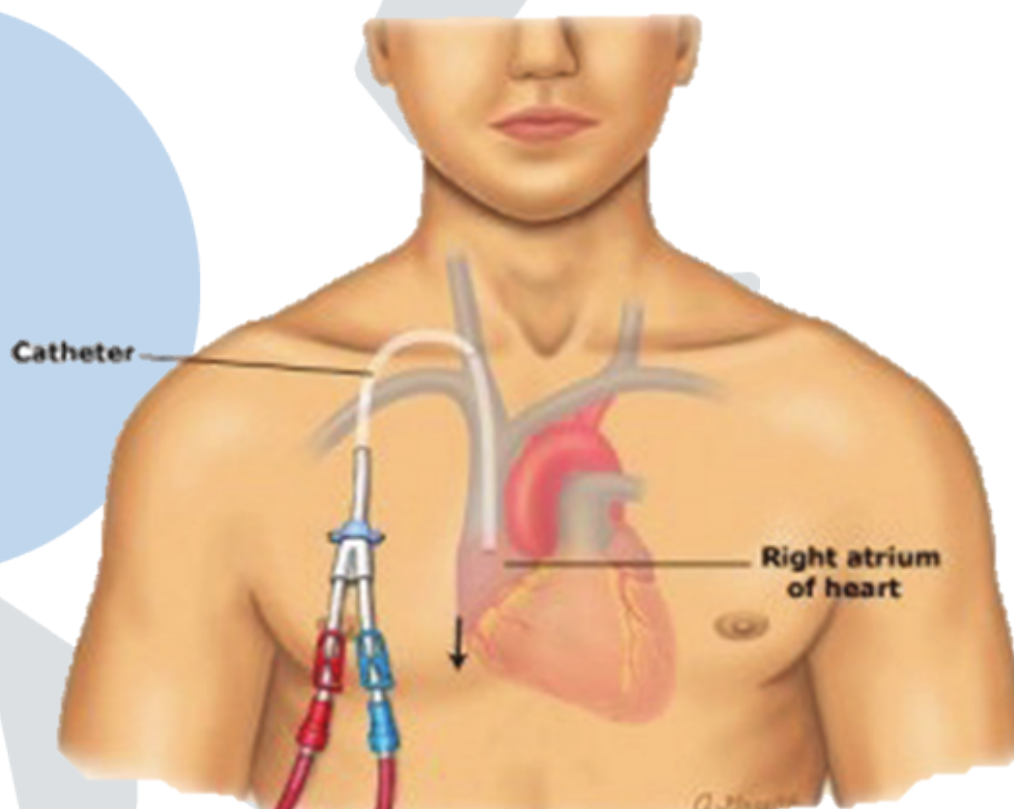
Your catheter – sometimes referred to as your ‘Hickman’, a CVC (central venous catheter), or simply your ‘line’ – is a plastic tube that is inserted into a central vein (a large vein in your chest). The purpose of the catheter is to allow access to your bloodstream over a prolonged period, usually the duration of your treatment. The catheter will be inserted through one of the large veins, either in your neck or below your collar bone.

The catheter can have one or two channels (lumens) running through it. The outside ends of the lines have clamps on them, and bungs (caps) to protect them. The catheter is held in place by a ‘cuff’ which you will be able to feel within the tunnel under your skin.

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).

Are there any alternatives?

A tunnelled line is one of a group of devices called central venous catheters (CVC). You have been referred for this device because your clinical team believes it is the most appropriate. The other two types of CVC are peripherally inserted central catheters (PICCs) or fully-implanted ports. Not all types of CVC are suitable for all types of treatment.



If you want more information about these alternatives, please contact your clinical team.

Where is the Catheter inserted, and why?

The tunnelled catheter is inserted in a large vein in your chest through your neck or below your collar bone or, rarely, your groin. The catheter is then 'tunnelled' under your skin, coming out through a small hole in the skin on your chest.

Some medication – notably chemotherapy or parenteral 'feed' – can irritate the walls of veins into which they are infused. In small veins, such as those in your arms, these medications are in contact with your veins for a longer time, and at greater concentrations, than if infused into a large central vein.

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 there, which quickly dilutes anything injected into it reducing the risk of this irritation.

What happens during a Tunnelled Catheter insertion procedure?

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

- You will 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 tunnelled catheter inserted whilst 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.
- No more injections necessary once the tunnelled catheters have been inserted.
- 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.

Risks of having the Catheter

- Insertion risks (which will be discussed in detail as part of the consent process) such as bruising, bleeding or infection; very rarely (less than one-in-one thousand) punctured lung or air entering the blood stream.
- Thrombosis (blood clot): having a line can increase your risk of forming blood clots in the veins in your chest.
- Symptoms of this can include swelling or pain in the shoulder, neck or face. This can usually be treated with clot-dissolving medication.
- Blockage: the line may sometimes block; this can usually be remedied with a special 'flush' which is put down the line.
- Dislodgement: if the line gets pulled the tip may move into a position which affects the function of the line. Your line will be particularly vulnerable to this in the first 21 days, before the cuff has knitted into your tissues.

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) or Advanced Practitioner (Radiographer) will discuss the procedure, including the risks and benefits, with you and you will be able to ask any questions.

Contrast risk

We very rarely need to give you contrast dye to check the position of the catheter.

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

How do I prepare for my Tunnelled line procedure?

Sometimes we will advise you not to eat or drink before your scan. Your appointment letter will tell you how long before your examination to stop or if you are an inpatient, the medical team 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 Radiographer or Radiologist 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 between 30 minutes and 1 hour.

What happens after the procedure?

Aftercare

The stitch(es) at your neck should be removed after 7 days; the stitch(es) at the exit site should be removed after 21 days. Dressings should be changed once per week and the line should be flushed once per week, particularly if not in use.

Dos and Don'ts of Catheter Care

Do:

- 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't:

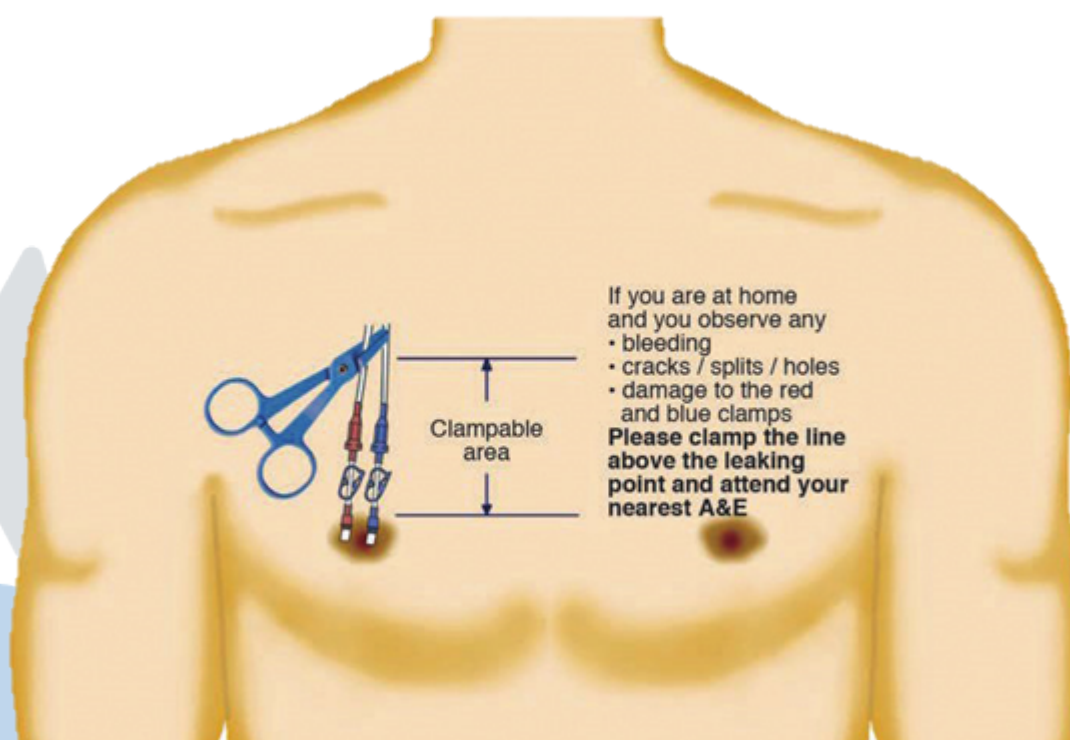
- Pinch, poke, bend or pull at your catheter.
- Use sharp objects around your catheter.
- Get your catheter wet until you are told it is safe to do so.
- Use an alcohol-based solution to clean your catheter as it can cause it to become brittle.

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: If you are at home, contact your IV Nurse or medical team (through clinic or Consultant's Secretary) you may have an infection and may need antibiotics.



(This image is not for use and is for illustrative purposes only.)

Whoever administers your treatment 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.

If you would like to be trained to check your own catheter for infection using this tool please ask whoever administers your treatment.

Bleeding from the Catheter Insertion site

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 any area that is bleeding.
- Go to your nearest Accident & Emergency Department.

Additional information for Nursing Homes and Carers

Dos:

- On treatment days please ensure that the patient wears clothes that allow easy access to the tunnelled line.
- Inform the patient's medical team 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 tunnelled line and inform the patient's medical team.
- If the bungs/white caps at the end of the tunnelled line fall off, inform the patient's medical team immediately.
- Inform the patient's medical team if there is any sign of blood leakage from the tunnelled lines as this may indicate a damaged or cracked tunnelled line.
- If you have any concerns regarding the patient's tunnelled line, please contact the patient's medical team.

Don'ts:

- Do not let the patient bathe or swim: only shower when a tunnelled line is in situ.

MR VICTOR - Multi Racial Visual Inspection Catheter Tool Observation Record

White/Pale/Asian Skins		African/Caribbean/Asian Skins		SCORE		Inspection		Action		Inspection		Action	
Central venous exit site appears healthy Dressing intact		Central venous exit site appears healthy Dressing intact		0				No signs of infection Observe daily Document				No signs of infection Observe daily Document	
The following signs may be evident: Slight redness around exit site Slight pain around the exit site		The following signs may be evident: Darker/Shiny/Dull skin Slight pain Hot to touch Slight redness around exit site		1				Possible signs of infection: Observe exit site Dressing intact Document				Possible signs of infection: Observe exit site Dressing intact Document	
The following signs may be evident: Redness Pain Swelling along exit site Pyrexia		The following signs may be evident: Darker/Shiny/Dull skin Pain Hot to the touch Pyrexia Slight redness around exit site		2				Early signs of infection: Take dressing down Swab exit site Redress Inform nurse in charge Inform SpR or above to initiate treatment Document				Early signs of infection: Take dressing down Swab exit site Redress Inform nurse in charge Inform SpR or above to initiate treatment Document	
Neutropenic (low WCC) Patient may not display any of the above signs		None of the above may be apparent Ask the patient if the exit site is hot or painful											
The following signs may be evident: Redness Pain Swelling/Tracking along exit site Exudate/Pus Crusting Pyrexia		The following signs may be evident: Darker/Shiny/Dull skin Pain Hot to touch Golden crusting Pyrexia Slight redness around exit site Swelling/Tracking along exit site		3				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				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	
Neutropenic (low WCC) Patients may not display any of the above		None of the above may be apparent Ask the patient if the exit site is hot or painful											
The following signs may be evident: Redness Pain Swelling/Tracking along exit site Exudate/Pus Crusting Pyrexia Oedema Pyrexia, Chills, Rigors, Raised WCC		The following signs may be 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		4				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				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.mrvictorcvtool.com

- Do not touch the lines or clamps of the tunnelled line unnecessarily.
- When providing personal hygiene-care for the patient please do not use talcum powder on or near the tunnelled line.

Other Sources of Information

- British Society of Interventional Radiology (www.bsir.org/patients/central-venous-access/)
- MacMillan(www.macmillan.org.uk/information-and-support/treating/chemotherapy/being-treated-with-chemotherapy/central-lines.html)
- Christie Hospital (www.christie.nhs.uk/media/2321/10.pdf)

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.