

Tunnelled Central Venous Catheter (CVC)

Introduction

You have been referred for a tunnelled line, sometimes referred to as a catheter. This leaflet aims to answer some of the questions you may have and explains how this line is different to other cannula or lines you may have had before. Also included is information about the risks and benefits of having Tunnelled Central Venous Catheter (CVC) and what to do if you have any problems.

Please contact the team who provide your care if you need any further information about anything in this leaflet.

What is a CVC?

A CVC (line) is a thin plastic tube that is inserted into a large vein in your neck, above your collar bone. This vein travels down into your chest and sits just outside the entrance to your heart. The main benefit of having a tunnelled line is that it can stay in place for a long period of time.

The catheter can have one or more lines at the end with small clamps and bungs attached to help protect the line. These are sometimes referred to as lumens. The line has a tiny cuff which some people may be able to feel just under their skin. This will heal into the tissue around it, helping to stop the line move from its position.

Your line will be inserted by trained staff in the Radiology Department. This is because we use an ultrasound machine to make sure that the line goes exactly where we need it to be. You will be given a local anaesthetic to numb the area on your neck where the line will be inserted. You will be awake during the procedure. The procedure does not take long but you should allow an hour.

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Department

Vascular

Review due

December 2027

Patient Information

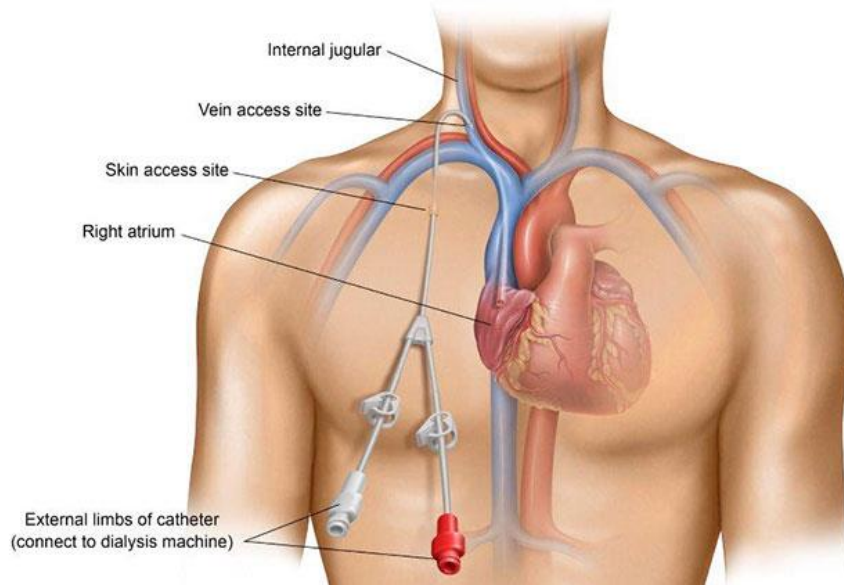


Figure 1: Central Venous Catheter

Are there other options?

You will have been referred for this procedure as your clinical team believes this is the most appropriate option for you. Not all types of CVC's are suitable for all types of treatment. If you wish to discuss alternative options, please contact the team who arranged this appointment.

What happens during the procedure?

An Advanced Nurse Practitioner or a Radiologist will discuss the procedure with you and ask you to sign a consent form. You will then be asked to change into a hospital gown and taken to the procedure room. Before the procedure begins, you will be asked to lie on a trolley.

It is important for you to be in a position that is safe for the practitioner to carry out the procedure and also in a position that you can remain still and comfortable for 45 minutes. For most patients this is not an issue but please let us know if you are feeling uncomfortable so we can safely move you.

**Patient
Information**

Will the procedure be painful?

You may feel a sharp scratch followed by a stinging sensation when the local anaesthetic is given. This will fade as the area becomes numb.

Benefits of a tunnelled CVC

- The CVC will be ready for use immediately.
- Your line will be covered by clothing on your chest.
- You will be able to continue with your usual activities.
- The risk of infection will be reduced as the cuff that secures the line also helps to act as a barrier to any bacteria.
- Easy to cover once healed when showering – shower shields can be purchased online.

Risks of a tunnelled CVC

The possible risks will be discussed with you as part of the consent process. They are as follows:

- **Bleeding** – the insertion site may bleed a little after the line is inserted. We will make sure that any bleeding has stopped before you leave the department. If you are currently taking blood thinning medications (anticoagulants), we will ask you to stop taking them 1 to 2 days before the date of the procedure when we will also take a blood sample to check your clotting.
- **Pneumothorax** (when there is air between the lung and the chest wall - usually due to a tiny hole being made. This is rare when using ultrasound imaging, as it provides a clear image of where the needle is when inserted.
- **Infection** – the wound site must be kept clean and dry until the cuff/skin has healed into the surrounding tissue, this usually takes about 3 weeks.

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- **Blood clots or thrombosis** – having a line can increase the risk of a blood clot forming. Your practitioner will scan your neck before the procedure is started. This is to make sure that your vein is a suitable size to go ahead with the procedure. Symptoms of blood clots or thrombosis can include pain and swelling in the shoulder, neck or face and will be treated with medication which will dissolve the clot(s).
- **Line blockages** –it is important that the line is flushed properly after use. If blood comes back up the line, then additional flushing may be needed. If the tube becomes blocked, a medication will be inserted into the line to help unblock it.
- **Line movement** – during the first 3 weeks, if the line gets pulled or dislodged before the cuff knits into the surrounding tissue it will move the tip of the line. This may affect the function of the line and how safe it is to give certain medications through the line. It may also mean that the line will need to be replaced, resulting in the procedure having to be repeated.
- **Arterial puncture or accidental damage to an artery** – the veins and arteries in the neck are usually close together. It is rare for this to happen due to the clear images produced by the ultrasound equipment.

Aftercare

The dressing on your neck can be removed after 7 days. The stitches at the exit site should be removed after 21 days. If the line is not in use, it must still be bled and flushed once a week, alongside a dressing change if required.

You must:

- keep the line insertion site clean and dry until it is completely healed, particularly when showering/washing.
- tell the team care for you, if you have pain/redness/swelling around the insertion site, or feel unwell.
- Continue with dressing changes until the insertion site (wound) is fully healed. The team caring for you will discuss with you who will be looking after your line, this may vary depending on the treatment you are receiving.

Patient Information

Do not

- get the catheter wet until you have been told that it is safe to do so, or when the insertion/wound site has healed completely.
- use or allow anyone to use sharp objects around your catheter.
- allow any pulling, poking, or bending of your line.
- lift anything heavy while the line is in place.
- go swimming while the line is in place.

Further help and support

If you have any problems with your line, your contact option will depend on who is looking after you.

It may be the:

- District Nurse
- IV therapy nurse
- Chemotherapy helpline
- Practice nurse

Whoever is looking after your line, will check regularly whether it is bleeding (aspirating) and flushing. They will also check that there has been no movement in the length of the line and that your skin around the insertion site is healthy. We will discuss the best option for you as to who will care for your line.

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Making a choice

Shared Decision Making

If you are asked to make a choice, you may have lots of questions that you want to ask. You may also want to talk over your options with your family or friends. It can help to write a list of the questions you want answered and take it to your appointment.



Ask 3 Questions

To begin with, try to make sure you get the answers to three key questions if you are asked to make a choice about your healthcare.

1. What are my options?
2. What are the pros and cons of each option for me?
3. How do I get support to help me make a decision that is right for me?

These resources have been adapted with kind permission from the MAGIC Programme, supported by the Health Foundation

* Ask 3 Questions is based on Shepherd HL, et al. Three questions that patients can ask to improve the quality of information physicians give about treatment options: A cross-over trial. Patient Education and Counselling, 2011;84: 379-85



<https://aqua.nhs.uk/resources/shared-decision-making-case-studies/>