

Insertion of a Hickman Line

Introduction

This booklet has been written to provide information to patients about to have a Hickman Line insertion, also known as a tunnelled central venous catheter (TCVC), which you may require for chemotherapy treatment, blood products, antibiotics, intravenous (IV) fluids or sterile liquid food (if you are unable to eat). It is not meant to replace the discussion between you and the nursing team treating you, but helps you to understand more about what is discussed.

What is a central catheter?

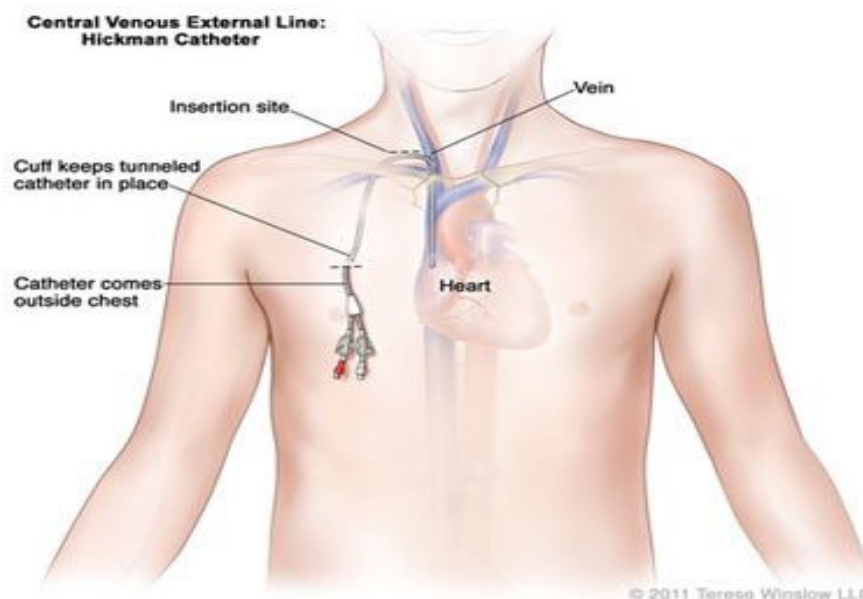
A TCVC is sometimes referred to as a 'Hickman' catheter or 'Groshong' catheter and is a small, flexible plastic tube inserted so that one end lies in a large vein in the chest just above the heart, with the other end lying outside of the body. This allows drugs and blood products to be given and blood samples to be withdrawn painlessly. A central catheter can stay in place for approximately 18 months (or for the duration of your treatment) and you can go home with it in place.

Why am I having a central catheter inserted?

A TCVC enables you to receive treatment without having needles frequently put into your veins. This may be very helpful if doctors and nurses believe your veins are small or difficult to find, you have received a lot of treatment in the past, or the drugs you are receiving can damage the veins.

Whereabouts in my body is a central catheter inserted?

One end of the TCVC sits in a large vein just above your heart; the other end is outside of your body on your chest wall. The length of the external catheter will vary from person to person but is generally between 4 and 8 inches long. The middle of the line is called a lumen. Some treatments require a single lumen catheter, whilst others require a dual lumen catheter, which your clinicians will discuss with you.



What will happen before the central catheter is inserted?

Prior to its insertion you will require certain blood tests, to ensure that your blood will clot normally after having the line inserted.

Routine swabs are taken to ensure that you are not carrying the MRSA bacteria. You will be given a solution of Chlorhexidine (a skin cleanser) which you should wash in on the night before and the day of the central catheter insertion and then another wash called Octenidene every day for the duration of your line insertion.

How is the central catheter inserted?

The (**TCVC**) **tunnelled central venous catheter** is inserted in a designated area at your hospital; this may be a specific ward, the X-ray department or an operating theatre. You may be admitted to the day procedures unit (as a day case) or a ward prior to the procedure taking place.

The medical team or trained practitioner who places the central catheter will discuss with you the placement of the central catheter and will consent you for this procedure. At this time you will be given the opportunity to ask any questions or raise any concerns which you may have.

Most patients have this procedure awake with local anaesthetic to numb the skin around the site where the central catheter will be inserted.

When a central catheter is inserted, it is necessary to make two cuts:

- The first cut is known as the **insertion site** and is near or just above your collar bone. This is where the central catheter is inserted into the vein.
- The second cut is known as the **exit site**. This is where the central catheter is tunnelled under the skin of your chest wall to go into the vein above.

You may have stitches around both the insertion and exit sites. Stitches will be removed after approximately 14-21 days.

Sometimes a chest X-ray will be needed, but this will normally be taken during the procedure at the same time as your central catheter insertion. Alternatively, a chest X-ray in the department may be necessary after insertion, to confirm that the catheter is in the correct place.

The procedure is sometimes a little uncomfortable and the insertion site may be tender and bruised for a few days after the central catheter has been placed.

You may need to take painkillers such as paracetamol for a few days following the insertion of your central catheter. If the pain killer you are taking is not working effectively, please ask your nurse or doctor, who can prescribe / suggest an alternative.

What are the benefits of having a central catheter?

A central catheter will prevent you from receiving numerous needles throughout the course of your treatment. This will prevent long-term damage to your veins that may be caused by receiving frequent injections over a long period of time.

Information for Patients

The central catheter can also be used to take blood samples for testing. In some circumstances there are some blood tests which cannot be taken from the catheter. If this applies to you, the reason for this will be explained to you.

Insertion of a central catheter allows the treatment the doctor has recommended for you to be given safely.

What are the main risks following the insertion of a central catheter?

It is important to realise that the majority of patients do not experience serious complications and consider a central catheter an asset to their treatment. As with most procedures there is a small risk of complications which may include:

- **Risk to the lungs**

Very rarely the lung can be punctured during insertion of a central catheter, and this can result in partial collapse of the lung (also known as a pneumothorax). Usually, the lung expands its self, but occasionally we will need to insert a tube to remove the air from your chest in order to re-expand it.

- **Haemorrhage (bleeding) within the lung cavity**

Another rare but serious complication at the time of insertion is the possibility of haemorrhage (bleeding) within the lung cavity. If this happens, we will need to insert a tube into your chest to remove the blood from your lung and you may require further intervention from another specialist.

Both of these risks are exceedingly uncommon, but you need to be aware of them in order to provide consent.

If these risks do occur, you are in a safe environment for them to be addressed quickly. If you have any further questions please do not hesitate to ask the doctor or nurse looking after you.

Other possible risks:

Bleeding/Bruising

When you have a TCVC inserted, the exit site may bleed for a few hours afterwards. This will be observed whilst you are in hospital and a pressure dressing may be applied to control this. You will only be allowed home when bleeding has stopped. You may also be left with some bruising around the site of insertion. If you have any concerns please raise this with a healthcare professional.

Infection

It is possible for an infection to develop either inside the central catheter or around the exit site. You may be given antibiotics or occasionally, if the infection is serious, the central catheter may have to be removed.

Blood clots

It is possible for a blood clot (thrombosis) to form in your vein around or at the tip of the central catheter. If you notice that the chest / arm area on the side where the central catheter is placed is more swollen than the other, or you develop sudden shortness of breath please contact the medical team. If a clot does form, your central catheter may have to be removed. You may also be given some medication to dissolve the clot.

Temporary irregular heartbeat

During the procedure, it is possible that over-insertion of a guidewire or the line itself may cause stimulation of the right side of the heart causing temporary irregular heartbeats. Adjusting the wire and catheter during the procedure will normally resolve the symptoms.

Blockage

It is possible for your TCVC to become blocked and if it cannot be unblocked, this may result in the line being removed. You may be given some medication to try to unblock the line however, if this is unsuccessful, the line will have to be removed.

Incorrect position of the catheter tip or dislodgement

The catheter position will be confirmed on X-ray and may need to be removed or the position readjusted, if it is in the wrong place. There is a cuff attached to the line. This cuff encourages tissue under the skin to hold the line safely in place. Until this happens, you will have a stitch and a dressing to hold the line in place. Please do not try to push the line in yourself if you believe that it has been pulled out further than it should be. Contact your health professionals as soon as possible.

Break or cut in the catheter

It is important that you do not get a break or cut in your central catheter. Do not use scissors near the central catheter and only use the attached clamp (if present – some lines do not need a clamp) on the thicker, strengthened part of the catheter.

If the catheter does split or become damaged, try to clamp the central catheter above the damaged area and contact the hospital. Your central catheter will need to be removed if it cannot be repaired.

Symptoms to look out for and report

Sometimes there are complications. If you suspect something is wrong or if you have any of the following symptoms, contact the hospital straight away:

- A temperature above 38 °C, fever, chills or if you feel generally unwell; this could be the beginning of an infection.
- Oozing or discoloured fluid coming from around the catheter
- Cracks or leaks in the catheter.
- Pain, redness or swelling around the site, in your neck or arm
- If your central catheter becomes dislodged (appears longer than normal)
- Swollen chest / arm on the side of the central catheter

Are there any alternatives to having a central catheter?

A central catheter has been recommended as the most appropriate way to deliver your treatment. If you have any doubts, or want to ask any questions please talk to a member of your nursing or medical team.

What are the consequences of having a central catheter?

There may be two small scars on your chest wall and near your collar bone once the central catheter has been removed.

Who will care for my central catheter?

24 hours after your central catheter has been inserted, the dressing will need to be changed. The dressing change will be organised with you before you leave the hospital after having the catheter inserted.

While you are in hospital, the nursing staff will look after your catheter. This involves:

- Cleaning the exit site, applying a new dressing, changing the caps/bungs/clave (weekly).
- Flushing the catheter to prevent blocking when it is not in use (this will be done weekly).

Your central catheter will need to be cared for to ensure that it lasts the duration of your therapy. It is possible for you to care for the catheter yourself and the nursing staff can teach you how to do this. However, this can be difficult to do, therefore a relative or friend can be shown how to do this for you. You will also be given a detailed information leaflet / booklet describing the procedures you have been shown. However, we can also arrange for community nurses to visit you at home or for you to attend the hospital for catheter care.

Removal of your central catheter

Your central catheter will be removed by a member of the medical staff/trained practitioners when you no longer need it. You will receive a local anaesthetic before the catheter is removed.

Removal of your central catheter will take approximately 30 minutes depending on your individual circumstances.

It may be necessary to make a further incision (cut) when removing your central catheter and this may require a minimal number of stitches. You may have two dressings; one on the incision site and one on the exit site which you will need to leave in place for a few days, as advised by the medical staff/trained practitioners. You will be informed when the stitches should be removed and an appointment will be made in the day unit for this removal, or you will be asked to make an appointment with your GP nurse to have them removed.

Frequently asked questions:

Can I eat and drink before having my central catheter inserted?

You may be given specific instructions regarding eating and drinking before having your central catheter inserted.

Can I have a bath/shower or swim with a central catheter in place?

As a general rule, we encourage people with a central catheter to take a shower. Showering is preferable to submerging your central catheter in bath water because of the risk of infection. If you do take a bath, try not to soak the exit site in the bath water and keep the end of the catheter (the end with the bung attached) out of the water.

Swimming should be avoided whilst your central catheter is in place.

Please note: When showering - ideally the chest wound should be covered with water repellent dressing as water may track down or around the line and is a potential source of infection. This can be done by yourself or your health care professional and more information can be obtained

Information for Patients

Can I lead a normal social life?

Having a central catheter in place should not interfere with your social life. However, if you have any concerns your nurse or doctor can give you more information.

Can I play sports?

There is a risk that your central catheter could become dislodged because of excessive upper body movement. Vigorous exercises are discouraged whilst your central catheter is in place. Non-contact/gentle exercise should be fine. However, if you experience any pain or problems, please check with your GP or medical team.

Can I go on holiday?

Please talk to your doctor before planning a trip abroad. It is possible to go on holiday abroad with a central catheter in place. However, you need to consider the type of treatment you are having, the duration and destination of your holiday and whether you have someone to help care for your central catheter. If you do travel by air, carry all medication in your hand luggage.

We hope this leaflet has been helpful and answered some of your questions but if you are unsure or worried at any time about your central catheter throughout your illness, please ask the doctors or nurses who will explain things in more detail.

Glossary of medical terms:

Local Anaesthetic: a drug that causes the loss of feeling or sensation.

Anticoagulant: any substance that prevents blood clotting.

Central catheter: sometimes called a central venous catheter, Hickman catheter or Groshong catheter – A small, flexible plastic tube inserted into the large vein above the heart, usually the internal jugular vein or subclavian vein, through which access to the blood stream can be made. This allows drugs and blood products to be given and blood samples withdrawn painlessly.

Community nurse: a nurse that can visit you in your own home.

Exit site: a cut where the central catheter comes out of the body, onto the chest wall.

Insertion site: a cut just above the collar bone near the neck where access to the vein is obtained for the central catheter to be inserted.

Local anaesthetic: a drug that causes the temporary loss of feeling or sensation to a particular area of the body.

This leaflet was originally developed by a range of health care professionals and the copyright was through the former Pan Birmingham Cancer Network. The leaflet has now been adopted by Heart of England Foundation Trust and reviewed and revised in line with trust policy.

Our commitment to confidentiality

We keep personal and clinical information about you to ensure you receive appropriate care and treatment. Everyone working in the NHS has a legal duty to keep information about you confidential.

Information for Patients

We will share information with other parts of the NHS to support your healthcare needs, and we will inform your GP of your progress unless you ask us not to. If we need to share information that identifies you with other organisations we will ask for your consent. You can help us by pointing out any information in your records which is wrong or needs updating.

Additional Sources of Information:

Go online and view NHS Choices website for more information about a wide range of health topics <http://www.nhs.uk/Pages/HomePage.aspx>

You may want to visit one of our Health Information Centres located in:

- Main Entrance at Birmingham Heartlands Hospital Tel: 0121 424 2280
 - Treatment Centre at Good Hope Hospital Tel: 0121 424 9946
 - Clinic Entrance Solihull Hospital Tel: 0121 424 5616
- or contact us by email: healthinfo.centre@heartofengland.nhs.uk.

Dear Patient

We welcome your views on what you thought of this patient information leaflet, also any suggestions on how you feel we can improve through our feedback link below:

- Patient Information Feedback email:
patientinformationleafletfeedback@heartofengland.nhs.uk

If you wish to make any other comments this can be done through the links listed below:

- Patient Opinion: www.patientopinion.org.uk
- I want great care: www.iwantgreatcare.org (Here you can leave feedback about your doctor)

Be helpful and respectful: think about what people might want to know about our patient information and this hospital and how your experiences might benefit others. Remember your words must be polite and respectful, and you cannot name individuals on the sites.

If you have any questions you may want to ask about your condition or your treatment or if there is anything you do not understand and you wish to know more about please write them down and your doctor will be more than happy to try and answer them for you.