

## Radiology

# Hickman line

A Hickman line is a simple, pain free way for nurses and doctors to treat you with antibiotics, medications or nutrients directly into your bloodstream. This means you can avoid a needle puncture every time you have treatment, which can be uncomfortable and stressful.

Doctors recommend the use of a Hickman line for patients who regularly have chemotherapy, long-term antibiotics and infusions. It can remain in place for a long period of time so it can be used throughout your treatment.

## What is a Hickman line?

A Hickman line is a soft long, hollow tube made from silicone which is inserted into a large vein in the chest. One end of the tube lies outside the body, usually at the bottom of your neck, and the rest of the line is tunnelled under the skin of your chest.

The space in the middle of the tube is called the lumen. Sometimes the tube has two lumens. This allows different treatments to be given at the same time.

At the end of the tube outside the body each lumen has a special cap to which a drip line or syringe can be attached. Sometimes there is also a clamp to keep the tube closed when it is not being used.

You might hear Hickman line referred to as a 'line', 'central line' or 'tunnelled line'.

The procedure will be performed by a radiologist (a specialised X-ray doctor) who will be assisted by a radiographer and a radiology nurse. It is not always easy to predict how long the procedure will take. As a guide, expect to be in the Radiology Department for about one hour.



### Are there alternatives to having the line inserted?

The alternative would be either repeated needle punctures every time you have treatment or a different type of line such as a PICC line. Your consultant or a member of their team can discuss these options with you further if you wish.

### Referral and consent

Before the procedure, you should have plenty of time to speak with your consultant or a member of their clinical team. The doctor will explain why having a Hickman Line is the best treatment for you at this time and may use this information leaflet to help explain what the procedure involves. You will then be asked to sign a pink consent form to confirm that you understand what is involved and wish to proceed. The doctor will also sign the pink form to confirm that this discussion has taken place.

The procedure will be explained to you again once you arrive in the radiology department by the consultant radiologist and you will be given the opportunity to ask any questions you still have. The radiologist will also ask you to sign a pink consent form to confirm that they have explained the procedure to you and that you are agreeing to having the procedure done. At all times the radiologist and referring clinician will be acting in your best interests. If at any time after discussion with your hospital doctor or radiologist you do not want the procedure carried out, then you can decide against it.

### Before the procedure

Please bring all your usual medication into hospital with you. Please remember to bring any sprays or inhalers with you. It is important that you understand the procedure and its implications, so if you have any questions, please ask the doctor. We want you to be as relaxed as possible for the procedure.

Take all medication as normal except **Warfarin; this will need to be stopped 5 days before your procedure.**

Please tell the doctor if you have:

- any allergies
- bad reactions to drugs or other tests
- asthma, hay fever, diabetes, or any heart (including heart valves) or kidney problems.

### Preparation

- You will have had some blood tests to check your blood clotting ability.
- **Please do not eat for the 6 hours** before your procedure. You can drink water up until your procedure time. This is because we may give you a sedative medicine, which could possibly make you feel sick if you have just eaten.
- If you are diabetic, please inform the ward staff.
- Please let us know as soon as possible before your test if you are taking any **antiplatelet medicines** (for example, aspirin, clopidogrel) or any **medicines that thin the blood** (for example, warfarin, see above).
- Take your other medicines as normal unless your doctor or nurse tells you not to.
- Before coming to the X-ray Department a cannula will be inserted into a vein in your arm.
- You will need to wear a hospital gown. The porters will collect you from the ward and take you to the X-ray Department on your bed for the procedure.

### During your examination

In the procedure room you will lie on the X-ray table. The radiologist will inject some local anaesthetic into your skin on your chest and neck to numb the area. This may sting a little as it goes in and then go numb. After this you should only feel pressure not pain. Throughout the procedure a nurse will be with you to monitor your pulse and blood pressure.

Your neck will be checked for a suitable vein using a small ultrasound machine. The area where the line is to be inserted is cleaned with an antiseptic fluid and you will be covered with a sterile drape.

A small hollow needle is inserted through the skin into a vein. This is known as the insertion site. A fine guide wire is passed through the needle further into the vein to secure the position. A second small incision is made in the chest; this is known as the exit site and is the place where the tube comes out of your body. The tube is pushed under the skin from the chest to the neck where it is then passed over the guide wire into the vein.

## Patient Information

The procedure is performed under X-ray guidance to make sure the line is in the right place. When finished, the radiologist will put a stitch in the skin to hold the Hickman line in place and secure a waterproof dressing over the line.

There is a small 'cuff' around the central line which can be felt under the skin just above the exit site that prevents it from falling out. The tissue under the skin grows around this cuff over a period of about three weeks and holds the line safely in place. Until this has happened you will still need the stitch holding the line in place.

## Risks of the procedure

As with any procedure or operation, complications are possible. We have included the most common risks and complications in this leaflet. The probability of these complications occurring will vary for each patient and the possibility of these complications happening to you will be discussed with you before you sign the pink consent form. Serious risks and complications of having a Hickman Line inserted are very rare. However, as with any procedure, some risks or complications may occur. The doctor and radiologist will explain these to you:

- **Bruising:** This is quite common and would normally settle a few days after the procedure.
- **Infection:** The insertion procedure will be carried out under sterile conditions to eliminate or reduce any sources of infection. However, infection may still occur from local infection of the skin or from within the bloodstream. Infections can be treated with antibiotics and in extreme cases we may have to remove your line.
- **Pneumothorax (Lung puncture):** This is a very rare complication, and the needle is inserted under ultrasound guidance to minimise this risk. A pneumothorax happens when the lung is accidentally punctured during the procedure. If this does occur, we may have to keep you in hospital for a few days until the lung has healed.
- **X-rays are a type of radiation:** We are all exposed to natural background radiation every day of our lives; this comes from the sun, food we eat, and the ground. Exposure to X-rays carries a small risk, but your doctor feels that this risk is outweighed by the benefits of having the procedure. We will take all safeguards to minimise the number of X-rays you receive.

### Safety

**All patients aged 12 – 55 years could you be pregnant?** The risks of radiation are higher for the unborn child so you will be asked to confirm that you are not pregnant before the examination can proceed.

### After your examination

- Immediately after the procedure the radiology nurses will check your pulse, blood pressure and oxygen levels
- You will be taken back to the ward and the nurses will check your blood pressure and pulse until you are fully awake.
- You will be able to eat and drink as soon as you wish.
- If you have any problems after the procedure, please speak to staff on the ward.
- Please ask the ward staff for the patient information leaflet **'Everything I need to know about going home with a Hickman line'**.

### Other Sources of Information

For information about the effects of X rays and information about radiology departments visit the NHS website : <https://www.nhs.uk/conditions/x-ray/>

Please note that the views expressed in these websites do not necessarily reflect the views of UHCW NHS Trust.

The Trust has access to interpreting and translation services. If you need this information in another language or format, please contact 024 7696 7161 and we will do our best to meet your needs.

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# Patient Information

**Document History**

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