We continue to try and improve our service and if you want to make a contribution to help us, we would be very happy to receive it. Please make any cheques payable to the 'Vascular Education and Research Fund, Pilgrim Hospital' and send them to:

The Vascular Education and Research Unit
Pilgrim Hospital
Sibsey Road
Boston
Lincolnshire
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References

If you require a full list of references for this leaflet please email patient.information@ulh.nhs.uk

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CARING FOR YOU

NHS
United Lincolnshire Hospitals
NHS Trust

Hickman Lines

Vascular Surgery Unit
Pilgrim Hospital

www.ulh.nhs.uk

Aim of the leaflet

This leaflet is aimed at patients who are having a Hickman Line inserted. This leaflet aims to tell you what a Hickman Line is and how they are inserted.

What is a Hickman Line?

A Hickman Line is a long thin tube made out of silicon. It is inserted so that one end lies in a large vein in the chest, with the other end lying outside of the body. A portion of the tube, between the two ends, is tunnelled under the skin of the upper chest. It has a cuff attached to it, which ultimately anchors the line in place and acts as a barrier to infection from the outside.

A single line can contain 1, 2 or 3 separate internal channels, each of which has an opening inside and outside the body. These provide a route for taking blood samples and giving intravenous (i.e. directly into a vein) treatment and avoids the need to repeatedly puncture veins in the arms for this purpose. A clamp and a connector, to which a bung is attached, protect each of the openings on the outside of the body.

Hickman Lines are used if it is thought your treatment is required for more than a couple of weeks. The type of line required is determined by your treatment. The duration of your treatment will determine how long the line is left in for.

Care of the line is very important (other leaflets deal specifically with this). Your doctors and nurses will be able to give you further help and guidance if required.

How is it inserted?

Hickman Lines are inserted by specialist vascular surgeons in theatre and radiologists in the x-ray department, using ultrasound and x-rays as guidance. Generally, the line is put in through

How will I know if something is wrong with my Hickman Line?

If you have a temperature, chills or feel unwell, please let the medical team looking after you know as soon as possible. This could be an early sign of infection. The tube is in a large vein close to your heart so it is important to treat any infection as soon as possible. If you have any concerns about your Hickman Line, please contact your nurse specialist or a member of the team looking after you.

What else do I need to know?

Hickman Line care is very important after it has been inserted, to stop it becoming infected or being pulled out. It is important that you understand the potential benefits and risks of the procedure before you consent to it – if you have any questions or concerns, do not hesitate to ask your doctor or nurse.

Thrombosis (blood clot): Sometimes a clot forms around tubing in the vein. This rarely causes you any problem. However, it sometimes prevents blood being taken from the Hickman Line for a blood test. To avoid this problem, a blood thinning solution is usually locked inside the port and the catheter when it is not in use.

Lung puncture: This happens when the lung is accidentally punctured during the procedure. It is not a common complication. If this occurs, we may keep you in hospital for a few days until the lung has healed.

Blockage: Rarely the tubing of your Hickman Line can become blocked. Regular flushing helps to prevent this – your Hickman Line will be flushed in the ward or unit where you receive your treatment. If the Hickman Line becomes blocked, sometimes it is possible to unblock it.

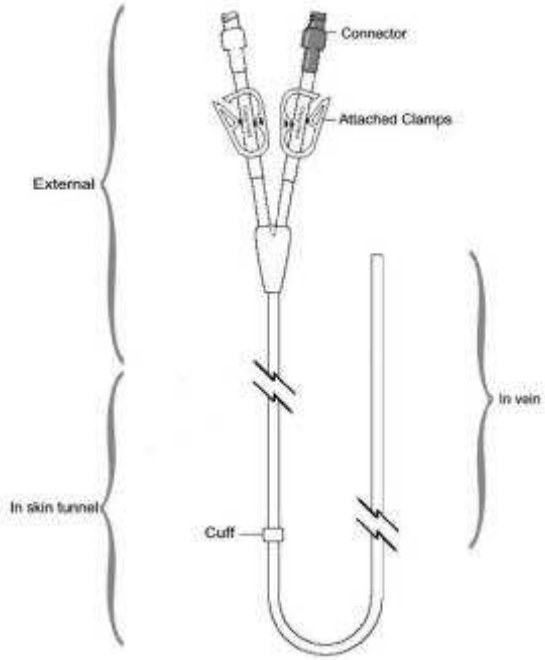
Other possible complications include puncture of the artery and heart rhythm disturbances.

Despite these potential risks, the vast majority of patients experience no problems whatsoever and Hickman Line insertion is a very safe and well tolerated procedure.

Are there any alternatives?

One alternative would be a repeated needle puncture to the vein every time you have treatment. Use of small tubing (cannula) in a small vein (usually arm/hand) would be needed for each treatment. A new one needs to be placed and removed each time.

either the jugular vein at the bottom of the neck, or the subclavian vein below the collar-bone.



You will be asked to lie on your back on the x-ray/theatre table. You will be connected to monitoring equipment to check your heart tracing, blood pressure and blood oxygen levels. It is very important to insert Hickman Lines under sterile conditions to avoid infection. Hair on the skin at the entrance or exit sites may be removed. The surgeon will put on a sterile gown, theatre cap and mask and you may need to wear a theatre cap also. The skin on one side of your upper chest and neck is cleaned with antiseptic. You will then be covered in sterile towels.

Local anaesthetic is used to numb the skin over the vein (the ‘entrance site’) and a point lower down the front chest wall (the ‘exit site’), as well as the skin in between (which will form the tunnel).

A small incision is made at the entrance and exit sites. The vein is then punctured with a needle. One end of a special wire is passed through the needle into the vein, along the course that the line will eventually take; the other end of the wire remains outside of the body.

The Hickman Line is tunnelled under the skin from the exit site to the entrance site. Your line is then measured and cut, to fit the length of your body's vein. A short tube (sheath) is placed over the wire into the vein at the entrance site, the wire is then removed and the free end of the Hickman Line is placed down through the sheath. The sheath is specially designed to be removed, leaving the line in place. The position of the line can be adjusted until it is satisfactory and then it is secured at the exit site, using a stitch. A further stitch is used to close the small incision at the entry site. A small dressing is placed over each of the entrance and exit sites and each internal channel is flushed via its external connector to ensure there is no clotted blood within it. They are then clamped and a bung attached. This end is wrapped in clean gauze and the line will be taped in a short loop to the chest.

How do I prepare for insertion of my Hickman Line?

Generally, little preparation is required. There are no requirements to starve before insertion. If you are taking warfarin or other blood-thinning treatment, you should tell your doctor, as it may be necessary to alter/change your medicines beforehand. You should also tell your doctor if you have any allergies. A recent coagulation screen blood test will need to be done.

Will it hurt?

Local anaesthetic may sting when it is first injected, but this wears off after a few seconds. The anaesthetic should remove any sharp sensations, but you may still be aware of some pressure on the skin during the procedure, particularly if working

at the bottom of the neck. Most people tolerate this well, although it feels slightly strange. Occasionally, people find it more uncomfortable and if that is the case, please let a member of staff know.

What happens afterwards?

If you are an inpatient, you should be well enough to return to the ward in the same way you came to the x-ray/theatre department. If you attend as an outpatient, you may be asked to remain in the department for an hour or so for routine observation, before being discharged.

The Hickman Line can be used immediately following insertion. Care must be taken not to tug on the line, particularly in the first 2 to 3 weeks following insertion, as the stitches holding it in cannot be tied too tightly (else they may block the internal channels). The exit site stitch can be removed after 20 to 21 days, either by one of the hospital or district nursing staff.

Possible problems when putting in the Hickman Line

Serious risks and complications of having a Hickman Line inserted are not common. However, as with any procedure, some risks or complications may occur. For example:

Bruising: This is quite common and normally settles a few days after the procedure.

Infection: The insertion procedure is carried out in a sterile condition to eliminate or reduce any sources of infection. However, infection may still occur from local infection of the skin or from within the bloodstream at any time while the Hickman Line is in place. Infections can usually be treated with antibiotics. In some cases, however, we may have to remove the Hickman Line.