

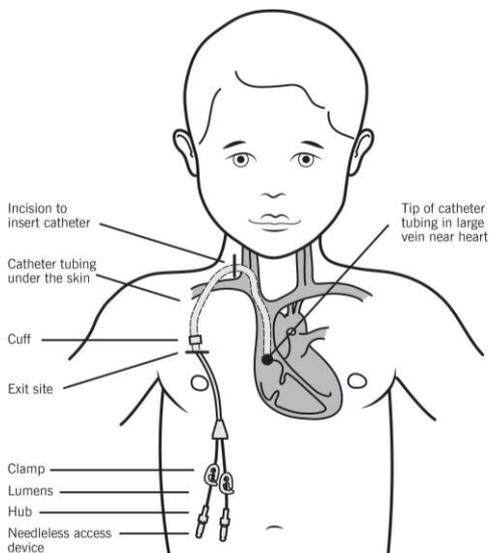
# FACTSHEET

This fact sheet is for education purposes only. Please consult with your doctor or other health professionals to make sure this information is right for your child. If you would like to provide feedback on this fact sheet, please visit: [www.schn.health.nsw.gov.au/parents-and-carers/fact-sheets/feedback-form](http://www.schn.health.nsw.gov.au/parents-and-carers/fact-sheets/feedback-form).

## Cuffed Tunnelled Central Venous Catheter

Your doctor may have talked to you about using a device called a 'cuffed tunnelled central venous catheter'. You may have also heard of these referred to as a 'Hickman' or a 'Broviac' line. This sheet explains how and why they're used.

### What it is and how is it inserted?



A 'cuffed tunnelled central venous catheter' is a soft silicon tube that is inserted into a large vein in the neck or chest. The tip of the catheter ends in a big vein close to the heart and can stay here for a long period of time so your child can receive intravenous medication or fluids. There will be two small incisions made in the skin. The first at the neck, this is where the catheter is inserted into a vein (entry site). The catheter is then passed under the skin and the second incision is made on the chest where the catheter comes out (exit site). The small

incisions are stitched closed and a dressing is placed over the catheter. These stitches will dissolve. Most of the catheter will not be visible; only a small section of the catheter remains outside the body and will have one or two openings or 'lumens'. This is where the medicine is attached or blood samples are collected.

The catheter is inserted by a surgeon or interventional radiologist. Your child will be asleep for the procedure. This usually means having a general anaesthetic. The procedure is done in an operating theatre to reduce the risk of infection. An X-ray is done after the catheter has been inserted in the operating theatre, to make sure the tip of the catheter is in the correct position and is safe to use.

### Why would my child need a cuffed tunnelled central venous catheter?

Cuffed tunnelled central venous catheter is usually inserted for the following reasons:

- To give certain medications
- Small/difficult veins
- Intravenous feeding
- Long term treatment

### Potential challenges with insertion

- There is a risk of bleeding or oozing around the insertion site in the neck and the exit site in the chest. This usually settles fairly quickly.
- The position of the catheter may not be satisfactory on the X-ray and it may need to be repositioned.

## Is it painful?

- Local anaesthetic may be injected into the surrounding area to numb the area and reduce pain.
- For about a week after insertion, areas where the catheter is inserted will be little sore. Once these have healed, your child should not feel any pain.

## How is this catheter kept in place?

- There is a cuff around the catheter that sits under the skin. Once the tissue under the skin grows over the cuff it helps to hold the catheter in place and prevents it from falling out. This usually takes 5-6 weeks to occur and the catheter is at a greater risk of being accidentally pulled out during this time.
- A clear dressing is also applied to the chest where the catheter is. The catheter outside the body is looped underneath the clear dressing. This is to assist in preventing the catheter from being accidentally pulled out. The dressings are changed every 7 days or sooner if they are wet, dirty or not sticking to your child's skin.

## Are there any changes to my child's everyday activities because of the catheter?

- Your child will be able to resume most activities including day care and school, once the catheter has been inserted.
- It is recommended that your child's catheter is not submerged in water, for example swimming or bathing are to be avoided. Your child is able to sit in a bath as long as the catheter is not covered in water.
- If your child currently plays a contact sport, please speak to your doctor for further advice.

## What are 'flushing' and 'hep locking'?

- 'Flushing' of the cuffed tunnelled central venous catheter occurs when a normal saline (salt water) solution is injected into the line to prevent it from blocking. This is typically done after medications have been given.
- 'Hep locking' stands for 'heparinised saline flushing'. Heparinised saline is a solution made out of anti-blood clotting agent (heparin) and normal saline solution. Heparinised saline stops the blood from clotting in the line. This is typically done when the cuffed tunnelled central venous catheter does not need to be accessed for a period of time.

## How is it removed?

Removal of this type of catheter is done as soon as it is no longer needed, such as on completion of treatment, unresolved complication or infection. Removal of the catheter is done by a surgeon or an interventional

radiologist in the operating theatre. Your child will need a general anaesthetic.

## Possible complications

Serious complications are very rare and most of the time a cuffed tunnelled central venous catheter is the best choice for your child. However, it's important to know of the risks involved before you consent to the procedure.

### Infection

As with any procedure there is a risk of infection, although we do our best to avoid this by making sure everything is clean and sterile in the operating theatre.

- Signs to look for include redness, pain, heat and swelling over the site where the catheter is inserted.
- Your child might also have a fever or feel unwell.
- If the cuffed tunnelled central venous catheter is thought to be the reason for the infection, then the catheter may need to be removed and your child given antibiotics.

### Damage to the catheter

The part of the catheter outside the body may become damaged with a split or crack.

- You may notice some fluid ooze from the catheter or under the dressing.
- If this happens, the catheter can be repaired, otherwise it will need to be removed and a new one put in.

### Accidental removal

The catheter may be pulled out by mistake.

- If this happens, any fluid or medication running through the catheter should be stopped and the catheter should be clamped.
- Pressure should be applied over the insertion site in the neck and also the exit site in the chest and medical staff informed immediately.

### Blockage

A common complication is blockage of the catheter.

- This happens if blood or medication gets stuck in the catheter.
- To prevent blockages the catheter will either have fluid running through it or be hep locked.
- A blocked catheter can sometimes be fixed by flushing or with a certain anti-clotting medication. Sometimes the catheter is too blocked and needs to be removed.

### Air bubbles

There is a small risk of air bubbles entering the catheter which can cause problems.

- We make sure that there is no air in the syringes used to inject into the catheter.

