

# Central venous haemodialysis catheters

This information sheet explains about central venous haemodialysis catheters and what to expect when your child comes to hospital. It may also be a useful reference for others looking after your child – for instance, teachers or youth club leaders.

## What is a central venous haemodialysis catheter?

This is a narrow tube that is inserted into one of the veins near the heart and held securely by a cuff under the skin. The tube is usually made up of two narrow tubes joined together, so that blood can be taken out and returned to the body using the same tube. A central venous haemodialysis catheter can be used to access the blood system immediately after it is inserted so this may be the first access method your child needs. It may also be used as a temporary option while a fistula is forming. Your child will need to have an operation to insert the catheter. This is carried out under very heavy sedation in older children or general anaesthetic in younger ones and generally takes around one to two hours.

## What does the operation to insert it involve?

This may be undertaken by a surgeon or by one of our X-ray doctors (interventional radiologist). The catheter will be inserted into a vein in your child's neck. This vein leads into the heart. Ultrasound is used to locate the blood vessel and to guide the insertion of the catheter. It is tunneled under the skin before being brought out from under the skin. This place is called the exit site. A short length of tube will be left outside the body so that the blood system can be accessed easily. Your child will come back to the ward with a dressing on his or her neck and over the tube.

## What happens afterwards?

After the operation, your child's shoulder and neck area may feel sore and bruised. This will settle down in a day or two. In the meantime, your child will be given pain relief to make him or her as comfortable as possible.

## Are there any risks?

Every anaesthetic carries a risk of complications but this is very small. Your child's anaesthetist is an experienced doctor who is trained to deal with any complications. After an anaesthetic, some children feel sick and vomit, have a headache, sore throat or feel dizzy. These effects are usually short lived. Any surgery carries a small risk of infection or bleeding. As your child will have a direct method of entry into the blood system, he or she is at an increased risk of infection. The exit site can also become infected. However, good care of the exit site and careful access of the catheter can minimise this risk.

## Dialysis using a central venous haemodialysis catheter

Only trained nurses connect your child to a dialysis machine. This is because a central venous haemodialysis catheter carries a greater risk of infection and special procedures need to be followed. When dialysis finishes, the catheter is filled with a solution called heparin that stops the line clotting with blood between dialysis sessions. At the next session, the heparin is drawn off so that the catheter can be used again.

## Looking after the central venous haemodialysis catheter

The following will help you avoid problems:

- Do not get the tube caught up in clothing - tape it securely to your child's skin.  
Do not remove or fiddle with the caps of the catheter – they are there to prevent any infection entering the blood system.
- Ensure the clamps on each limb of the line remain clamped.
- Use the central venous haemodialysis catheter for dialysis only.

## What if...

Problems with central venous haemodialysis catheters are rare, but it's a good idea to know what to do if a problem does crop up.

What if...	Solution
the cap comes off	Replace it with a clean cap and inform the hospital on the contact number below as your child may need antibiotics intravenously.
the catheter is pulled	Make sure the catheter has not been pulled out or knocked and that the cuff is not showing. If all is well, tape it securely. If all is not well, tape it securely to keep the remainder of the catheter in place and ring the hospital on the contact number given.
the catheter is damaged	Inform the hospital on the contact number given as the catheter will need to be repaired (if cut) and your child will need antibiotics intravenously.
the catheter falls out	Apply firm pressure over the exit wound and make sure it is not bleeding. Ring the hospital on the contact number given so that the catheter can be reinserted.
the exit site looks infected	Inform the hospital on the number given and arrange to come in to have a swab taken. Apply antibiotic or antifungal ointment to the exit site if needed.

**Notes**

**If you have any concerns or would like advice about any aspect of  
your child's central venous haemodialysis catheter care, please call:**  
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Compiled by the Nephrology department in collaboration with the Child and Family Information Group

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Adapted by the BAPN [www.bapn.org](http://www.bapn.org)