

# Care of your central venous catheter (haemodialysis catheter)

## Information for patients

This leaflet answers common questions about caring for your central venous catheter. If you would like further information, or have any particular worries, please do not hesitate to ask your nurse or doctor.

### What is a central venous catheter (CVC)?

A central venous catheter (CVC) is a soft, flexible, man-made tube that is placed into a large vein, most usually in your chest. Occasionally it may be placed in a vein in the neck or groin.

The CVC has two openings known as 'lumens' or 'ports'. During haemodialysis, the lumens are connected to the haemodialysis machine; one lumen takes blood from your body to be cleaned, and the cleaned blood returns to your body through the other lumen. The point where the catheter goes through the skin is called the 'exit site' (please see the picture below).

A CVC can be used while you are waiting for surgery for a fistula (AVF) or graft (AVG) formation or repair. It can also be used as a permanent method of vascular access, if for some reason an AVF or AVG cannot be made. For our purposes, this catheter will be used to carry out your haemodialysis treatment.

### What is haemodialysis?

When your kidneys do not work properly, the process of cleaning the blood and removing excess fluid from your body must be carried out by a haemodialysis machine. There are other forms of dialysis, but we only talk about haemodialysis in this leaflet.

There are two different types of CVC, tunnelled and non-tunnelled.

#### Tunnelled CVC

Tunnelled CVCs are inserted using x-ray guidance in the x-ray department (IRCU) at the Royal Free Hospital. They can be used long term, and are usually located in the chest. The CVC is held in place by stitches to the skin, which may be removed once the catheter is firmly in place. The renal vascular access team at the Royal Free Hospital recommend removal of wings stitches (stiches close to exit site of CVC line) after a period of at least four weeks for non-diabetic and six weeks for diabetic patients to allow the exit to heal.

Neck stitches at the insertion site need to be removed on approximately the 7th day following CVC insertion.

## Non-tunnelled CVC

Non-tunnelled CVCs are used short-term and are usually located in your neck. If you have a non-tunnelled line, the stitches will need to remain in place for as long as you have the CVC.

The advantage of this type of access for your treatment is that it can be used immediately; this is especially important if your kidneys stop working sooner than expected. It can become infected easily and is not used long term.

## Dressings and line locks

The point at which the line goes through the skin is called the exit site. The exit site must be kept covered at all times to prevent infection. You may also have a special antibacterial 'bio patch' dressing applied to help prevent the exit site from becoming infected. This dressing needs changing every seven days. It must always be changed if blood stained or soiled. The biopatch has to be covered with clear dressing such as Tegaderm™ or IV3000 (see the picture).



An antimicrobial locking solution (duralock-C) will be administered into your line to keep it from blocking. This is known as the 'capping off' solution.

After the 'capping off' solution has been administered into the line, two plastic caps are screwed onto the end of the lines. The caps prevent blood loss and stop bacteria and air from entering the line. The lines also have clamps on them, and for your safety it is important that these remain closed at all times when the line is not being used.

## Caring for your line

- Make sure that your dressing is in place and secured at all times. This will be changed by the dialysis nurses once a week prior to your dialysis. The less your line is able to move the less likely it is to become infected.
- During dressing changes and when CVC is being connected/disconnected, avoid breathing or coughing over your CVC to reduce the risk of germs spreading to the line.
- If you must touch your line, make sure you have washed your hands. This applies to anyone touching your line – including doctors and nurses.
- Immediately report any signs of swelling, tenderness, fever, pain or oozing from the exit site to the nursing staff on your dialysis unit. Contact numbers are provided at the end of this leaflet.
- Avoid using sharp objects near your CVC – shaving around the CVC if required must be done with extreme caution by the dialysis nurse. The dialysis nurse will never use scissors near your CVC.

- Never open the clamps or remove the end caps from the lumens. These prevent air and germs from entering the blood stream.
- Avoid pulling on the tunnelled lines.
- Do not get your dressing wet. Be careful when taking a bath. Do not take a shower and do not swim while you have a catheter. If the dressing gets wet, bacteria may enter the exit site or line and cause an infection.
- We would not recommend that you replace the dressing if it becomes dislodged; please contact your dialysis unit for advice. Contact numbers are provided at the end of this leaflet.
- Unless it is a medical emergency the line should not be used for any other purpose than dialysis. All persons using the line must have received training in its use.

### **Please seek urgent medical advice should the following occur:**

#### **Bleeding around the 'exit' site**

Apply pressure to exit site, and contact your renal unit for advice. Contact numbers are provided at the back of this leaflet. If the bleeding is heavy or does not stop, dial 999 and ask for an ambulance, state you are 'bleeding from a haemodialysis catheter'. Ask the ambulance crew to take you to the Royal Free Hospital A&E department.

#### **CVC falls out**

In the unlikely event that this occurs, you should immediately apply pressure to the exit site to stop any bleeding. Contact your dialysis unit or renal ward for advice. If you are unable to control the bleeding, you must be treated as an emergency. Please dial 999 and ask for an ambulance. Please ask the ambulance crew to take you to Royal Free Hospital A&E department.

#### **CVC dislodges, but does not fall out completely**

**Do not** attempt to push the CVC back in. Immediately contact your dialysis unit or renal ward. You will need to visit the department to have this corrected.

#### **CVC caps fall off, the clamps break or the tubing becomes cut/punctured between the clamp and the skin**

Immediately contact your dialysis unit or renal ward for advice. In the unlikely event that the caps come off and the clamps break at the same time, or if the tubing becomes cut or punctured between the clamp and the skin, you will need to be treated as an emergency. Please dial 999 and ask for an ambulance. Please ask ambulance crew to take you to the Royal Free Hospital A&E department.

## Where can I find out more?

You should talk to the surgeon, doctors and nurses who are managing your care and ask any questions you have regarding the procedure. Don't be afraid to ask – we are here to help.

- Royal Free Hospital switchboard number: 020 7794 0500 followed by:
  - Renal vascular access extensions: 38885, 31136, 36335
  - 10 East ward extension: 34131
  - 10 South ward extension: 35474
- Barnet Hospital dialysis unit: 020 8216 4955/4956/4957
- Edgware Community Hospital dialysis unit: 020 8732 4160/4164/4167
- Mary Rankin dialysis unit: 020 7387 7320
- Tottenham Hale dialysis unit: 020 7830 2747 or 020 8801 5334

## More information

For more information about kidney services at the Royal Free London, please visit our website: [www.royalfree.nhs.uk/services/services-a-z/kidney-services](http://www.royalfree.nhs.uk/services/services-a-z/kidney-services)

## Your feedback

If you have any feedback on this leaflet or for a list of references for it, please email: [rf.communications@nhs.net](mailto:rf.communications@nhs.net)

## Alternative formats

This leaflet is also available in large print. If you need this leaflet in another format – for example Braille, a language other than English or audio – please speak to a member of staff.

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