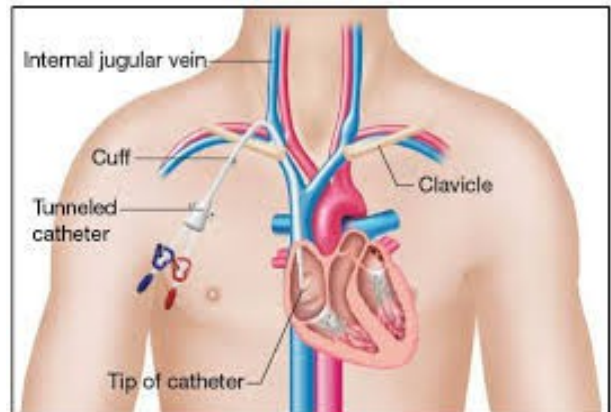


Patient information – long-term central venous catheter (dialysis line) care for haemodialysis patients

This patient information sheet aims to advise patients and their families on how to prevent infection and care for their Central Venous Catheter, also known as a haemodialysis neckline or dialysis line. Due to the fact it is inserted into one of your large veins it carries a risk of infection. Therefore it is important that you read and follow the advice given in this document.

What is a dialysis line?

A dialysis line is a flexible plastic tube that can be put into a vein just below the neck. The tube can then be used for haemodialysis. It is divided into two so that blood can flow in and out at the same time during the haemodialysis treatment. (Diagram from www.kidney.ca)



How is the dialysis line put in?

The doctor will inject some local anaesthetic under the skin close to your collar bone. They will then make a small incision and pass the Dialysis line under the skin and into one of the large veins. The procedure is performed under aseptic conditions with sterile equipment to minimise the risk of infection. The dialysis line will be held in place with two or three stitches which will be removed by the nurse after about 3 weeks. By this time the skin will have grown around the dialysis line and this will hold it in place. The dialysis line will stay in when you go home and stays in place as long as is necessary (sometimes this can be for months). We recommend that you do NOT shower/bath for at least 48 hours after line insertion. Please also see section below -

“Taking a bath or shower with the dialysis line in place”

Is the dialysis line visible and if so how much of it will be seen?

At the exit site (where the line exits the skin) there is a single tube which branches into two, forming a Y appearance. The tube sits on the outside of the upper chest and is about 10-12cm long. At the end of each branch of the Y, a cap is applied to protect the ends to prevent germs entering the line. **It is important not to remove these caps yourself.**

How does the Dialysis line work?

When you arrive at the hospital for your dialysis, the nurse will remove the caps and clean the ends of the dialysis line. They will take a small amount of blood out of each side of the line and discard it. The nurse will then flush each side of the dialysis line with saline. The dialysis line can then be connected to the dialysis machine. Blood will come out of one side of the line, it will pass through the dialyser (artificial kidney) to be cleaned and will return to you through the other side of the dialysis line. The blood is flowing continuously around a circuit: there is only a small amount of your blood outside your body at any one time. When dialysis is completed the nurse will put some saline and heparin into both sides of the dialysis line to make sure that no blood clots form. Clean caps will then be applied.

What are the risks associated with having a Dialysis line?

The biggest risk is infection. At the end of each branch of the Y there is a cap. These are removed by the nurse each time you have your dialysis treatment and must never be removed between sessions.

If the cap comes off there is a risk that infection may be introduced into the dialysis line which could make you feel very unwell. If the ends of the dialysis line are exposed to the atmosphere, germs may enter the line and then go into the blood stream.

If a cap accidentally comes off, then contact your Renal Unit or acute in-patient renal ward straight away. (Please see contact numbers at the end of this document.)

Infection may also develop around the exit site. It is important that you recognise the symptoms that may occur should you develop an infection and remember that infections can involve the exit site, tunnel track or bloodstream.

How will I know if I have developed an infection?

- You may feel feverish, hot, cold, clammy and shivery
- You may feel generally unwell
- You may notice redness or discharge from around the exit site
- You may also feel some pain coming from the exit site area

Other risks may include bleeding from the exit site, the dialysis line may dislodge or clots may develop in the dialysis line itself. This may require additional treatment by your dialysis nurse.

How is the exit site cleaned?

At each dialysis treatment the nurse will clean around the exit site using a special cleaning agent containing Chlorhexidine, which is a type of disinfectant. The nurse will then apply an anti bacterial ointment to the exit site. This contains Mupiricin which is an antimicrobial antibiotic which is proven to help prevent infections. A clean soft dressing is then applied.

As an extra precaution to reduce the risk of infection, your renal unit will issue you with a body wash called Octenisan which reduces the presence of bacteria on the skin. Use this before each dialysis to help reduce the risk of infection between your visits to the unit. Use Octenisan as if it were a liquid soap. Apply with a damp washcloth in the bath or shower and leave on for 3 minutes before rinsing. This can also be used to wash your hair.

Taking a bath or shower with the dialysis line in place.

This is possible but you must prevent the dialysis line from being immersed in water. By immersing the dialysis line in water when bathing or showering there is a risk of bacteria entering the exit site. This may cause an infection.

It is very important that you take extra care when showering/bathing. We recommend that you do not touch or remove the existing exit site dressing that the dialysis nurses will have applied. Instead, cover the area of the dressing completely with clean gauze or folded kitchen roll and then secure this with a large clear waterproof dressing. After bathing/showering, remove this dressing along with the gauze/kitchen roll, leaving the original dressing in place unless it has become wet (see below).

Will I have to change the dressing and clean the exit site at home?

Possibly, as the dressing must always be dry and secure to your skin. This will help prevent infection developing and holds the line firmly to prevent it from pulling. We recommend that you do not change the dressing. However, if the dressing does become wet or loose then you will have to change it at home between dialysis treatments. The dialysis unit can provide you with spare dressings. To minimise infection risk, **only** change the dressing if necessary. If you wish to take complete responsibility for your exit site care, this may be possible following a competency assessment with a registered nurse, and signing of an agreement that states that you understand the care required and the risks involved. In this situation, dialysis staff would still need to view your exit site on a weekly basis.

How to change the dressing if necessary between visits to the Renal Unit.

Always remember to wash your hands before changing your dressing. Good hand washing is essential; always use liquid soap and a clean towel. Remove any jewellery and have bare arms below the elbow. Wash your hands under running water and concentrate on the areas between your fingers and around your nails.

Always wash your hands thoroughly before any contact with your exit site and **do not** touch the area unnecessarily. There is always a risk of infection when the exit site is exposed.

Check the dressing on removal for any signs of bleeding or discharge.

Always discard the old dressing into the bin. Wash your hands between removal of the old dressing and the application of a clean dressing. Apply the new dressing without touching the part that will be next to your catheter and skin.

Do not use talcum powder or lotions around the exit site. These too could be potentially harmful to you by the introduction of unwanted bacteria onto your skin.

If you have a cold or cough avoid dressing changes at home or ask someone else to do it for you.

Will I be able to swim with the dialysis line in place?

Regrettably, swimming is not allowed with a dialysis line in place. Swimming pools contain a host of germs which could enter into the exit site. This could cause an infection and make you feel very unwell.

What happens if my line seems to have moved or completely fallen out?

Always treat your line with great care and avoid accidentally pulling on the line e.g. when getting dry after a shower/bath or turning over in bed.

Occasionally the skin does not grow sufficiently around the catheter to keep it in the right place. This may result in the line being pulled out slightly or even completely.

If the line is out completely

1. Apply firm pressure for 5 - 10 minutes to the side of your neck where the line went into the large vein (see diagram above) Any bleeding will be evident at the exit site on your chest BUT it is important that you press on the side of the neck as this is where the bleeding will originate from
2. Sit or lie down quietly until the bleeding has stopped
3. Contact the Dialysis Access Nurse Specialists or your Dialysis Unit or acute in-patient renal ward for further advice
4. When the bleeding has stopped apply a clean dry dressing to the exit site on your chest

If you think the line has moved

1. Contact the Dialysis Access Nurses, your Dialysis Unit or acute in-patient renal ward
2. If required securely tape the line in place to avoid further movement

In both the above situations, it is likely that you will need to attend hospital for a full assessment.

When to contact the Renal Unit

- 1.) If you have symptoms of infection as above
- 2.) If you develop pain in your arm on the same side as your dialysis line
- 3.) The caps come off or the clamps break
- 4.) A hole or tear appears in the tube
- 5.) Bleeding occurs from the exit site or tube
- 6.) If the dialysis line comes out completely or appears to have moved

If you develop any of these symptoms or problems you must contact the Dialysis Access Nurses, your renal unit or renal ward immediately.

The Norfolk and Norwich Kidney Centre (Dialysis Unit): 01603 288240
Cromer Dialysis Unit: 01603 646155 (Monday to Saturday)
Acute in-patient renal ward: 01603 286069 (24 hours)
Dialysis Access Nurse Specialists: 01603 288666 (Monday to Friday 0800-1600)

Useful websites for further information: <http://www.bjrm.co.uk/patient-information.aspx>

<http://www.independencedirect.co.uk>