

Tunnelled (Cuffed) Dialysis Catheter Insertion

Introduction

This leaflet is about the procedure required to put in a tunnelled (cuffed) dialysis catheter. It is intended to provide you with the information needed before you agree to have the procedure performed. It does not replace discussion between you and your doctor or the renal access nurse specialist. Please ask all the questions you need, to ensure that you fully understand what is involved.

What is a tunnelled dialysis catheter and how do I need it?

For a dialysis machine to work there must be a way of taking blood from you to pump it into the kidney machine. A tunnelled catheter (also called a line) is one way of doing this and it can be used rapidly. The catheter is put into a vein in your neck and the tip is fed into the big vein in your chest that takes blood to your heart. The catheter passes under the skin between your neck and chest wall so that it comes out

of the skin just below the collarbone. Tunnelled catheters are used when it is likely that a catheter will be needed for several weeks. Tunnelled catheters are more comfortable and less likely to become infected than the temporary catheters that are available.

Who will insert the catheter and where will it be done?

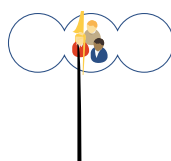
A kidney specialist (Consultant) or a trainee kidney specialist (Specialist Registrar) or a specially trained nurse will do the procedure. The operator performing the procedure may be different to the one who recommended the procedure to you but they will be happy to answer your questions. It will be done in a special procedures room in the Renal Unit or in the Radiology Department in the Royal Devon and Exeter NHS Foundation Trust. It is done under local anaesthetic so you will remain awake. You can eat and drink before and after the catheter is put into the vein. You will be asked to give written consent prior to the procedure.

Will I need any blood tests?

Blood tests will be carried out prior to the procedure to ensure that your blood will clot properly.

How long will it take?

It is not easy to predict how easy or complicated the procedure will be. This is influenced by how easy it is to identify the vein and pass the guide wire down into it. Usually the whole procedure will last 40-60 minutes.



What will all happen during insertion of the tunneled dialysis catheter?

You will lie on a trolley or on a hospital bed as flat as you comfortably can. To keep everything sterile, the operator inserting the catheter will wear a cap, mask, sterile surgeon's gown and gloves. Your skin will be cleaned with an antiseptic liquid and then covered by a large sterile drape.

The operator will use an ultrasound machine to find the position of the veins in the side of your neck. Local anaesthetic will be put into the skin and when the skin is numb, the vein will be located with a needle and a fine wire used to mark the position of the vein. The operator will now use anaesthetic to numb the skin below your collarbone. The dialysis catheter will be pushed under the skin and up to the marked position of the vein in your neck. The catheter is then passed into the vein using a guiding tube placed in the position marked by the guide wire. A few stitches are required in the neck where the catheter enters the vein and also where the catheter comes out of the skin on the front of your chest. The stitches will be taken out 7-10 days post insertion at the insertion site and 3-4 weeks for the stitches that hold the dialysis catheter in place at the exit site.

Will it hurt?

Very rarely a nerve may be damaged either from the injection of local anaesthesia or directly from the needle. This is usually temporary and recovers without any medical Intervention.

Very serious complications are rare but you should be aware that they could happen:

The vein into which the catheter is being inserted can be damaged or torn. This could result in internal bleeding in the chest. Additional treatment would be required which could mean putting a tube into the chest (a 'chest drain') to remove the blood or even an operation.

It is possible to damage the lung on the side that the catheter is being inserted. If the lung is damaged, it may collapse making you breathless and cough. You may need another procedure (possibly insertion of a chest drain) to allow it to expand again.

It is very rare but possible to damage the heart muscle. This is potentially life threatening. Any chest pain you may experience needs to be reported to the Doctor immediately.

The chance of experiencing one of these serious complications is very small. Everything is done to minimise the risk. Death as a result of a complication is extremely rare.

Once the catheter is successfully in place, the main complications are blockage of the catheter by blood clot or infection. A blocked catheter will often need to be removed and replaced. An infected catheter must be removed as quickly as possible. If the catheter is not removed, the blood may carry infection to other parts of the body such as the heart valves or bones.

Signs of infection are fever and flu like symptoms and shivering. You should report these symptoms immediately to a doctor or nurse in the kidney unit.

To reduce the risk of infection, personal hygiene and proper care of your catheter is essential. The nurse looking after you in the Day Case Unit will also give you a leaflet together with a tube of Bactroban Nasal Ointment and will discuss this with you in more detail.

When do I contact the Renal Unit

If the catheter appears to have moved further in or out of your body

If the area around your catheter becomes 'mucky' or you see pus

If the area feels sore or becomes red or inflamed

If you develop a temperature, become shivery or generally feel unwell

If the dressing becomes loose or removed

If the red caps on the ends of your catheter fall off

If you notice a split or leakage of blood or clear fluid from your catheter

If the stitches holding your catheter in place have broken free of the skin

If your catheter falls out apply direct pressure for a full 5 minutes with a clean cotton cloth.

Contact the Renal Unit at the Royal Devon

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