

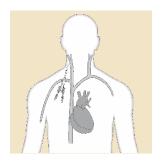
CENTRAL VENOUS CATHETERS

(HD Catheters)

During hemodialysis, your blood flows into a hemodialysis machine, where the wastes and excess fluid that have built up are removed. The cleaned blood then flows out of the machine and back into your body.

You can be attached to the dialysis machine in several different ways. The commonly used methods of providing access to the bloodstream for hemodialysis are:

- Fistula (arteriovenous fistula or AVF for short)
- Graft (arteriovenous graft or AVG for short)
- Central venous catheter (also called a central venous line or hemodialysis catheter)



The central venous catheter

The central venous catheter is a flexible synthetic tube that is usually placed in a large vein in your chest. Sometimes these catheters are placed in a vein in the neck, or groin. A central venous catheter has two openings called ports or limbs. One port takes blood from your body to be cleaned by the dialysis machine, and then clean blood returns to your body through the other port. The spot where the catheter goes into the skin is called the exit site.

A central venous catheter can be used for dialysis while you're waiting for surgery for your AV fistula or graft. It's also an option if an AV fistula or graft can't be made.

Central venous catheters are put in place by a nephrologist, a surgeon or a radiologist in the x-ray department or operating room.

A central venous catheter can be used immediately once it's placed in your vein. There is an increased risk of infection with central venous catheters at both the exit site and within the bloodstream. There may also be damage to the vein where the catheter is placed.

Surgery to place a central venous catheter

The central venous catheter is put in using ultrasound or x-ray (fluoroscopy) to help with the correct placement. A local anesthetic, i.e., freezing, is used.

The catheter is held in the right place by a few stitches on your skin. If your central venous catheter is going to be used permanently, because an AV fistula or graft can't be made, the stitches may be removed once the catheter is firmly in place.

Care of your central venous catheter

After central venous catheter placement

- Keep your dressing in place and dry at all times.
- Do not take a shower or soak the area in a bathtub; your nephrology team will give you some bathing suggestions.
- Do not swim.
- Report any fever, chills or pain on your skin at the exit site to your nephrology team.

Your nephrology team will give you any other instructions you need.

On an ongoing basis

- Never remove the caps on the end of the central venous catheter openings.
- Avoid pulling on your catheter.
- Always wear a mask when your dressing is being changed and when the caps are being removed or replaced.

Notify your nephrology team right away if any of the following occur

- Fevers, chills, or sweats.
- Tenderness on your skin at the exit site.
- New arm or facial swelling.
- Bleeding that occurs from your catheter or the surrounding area when you are not in the dialysis unit.

At each hemodialysis treatment

- Make sure the nurses can see your central venous catheter at all times during your hemodialysis treatment.
- Wear a mask whenever the caps are removed from the ends of the catheter openings.

Other important things to remember

- If your central venous catheters becomes blocked, you'll need medication to unblock it.
- Make sure your dressing stays dry and in place unless it is being changed by a nurse.
- Take special care to keep your dressing dry when washing.

Generally, only nephrology staff should do anything with your catheter. In an emergency, other healthcare staff may need to use the catheter to get blood samples or to give you medication.

It's important to tell these healthcare staff that there is a blood thinner in your catheter that needs to be removed before anything else is done.

The Kidney Foundation would like to acknowledge and thank the members of the Kidney Foundation's National Programs & Public Policy committee for their contributions and professional expertise in the development of this resource.