

Hemodialysis access

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)

Your nephrology team (that may include nephrologists, radiologists, and surgeons) will create this access using a minor surgical procedure.



The AV graft

A graft is one way of providing access to your bloodstream. Sometimes its used because a person's arteries and veins are not suitable to make a fistula.

To make a graft, a short piece of special tubing is places under the skin to connect an artery and a vein. This graft can be used as the site for inserting needles for hemodialysis. Grafts can normally be used within two to four weeks of surgery, if necessary, because there is no need to wait for them to enlarge – the graft is already the right size.

Care of fistulas and grafts

After surgery

Your surgeon will give you instructions on caring for your dressing, and the surgical team will let you know when the stitches will be taken out. Once your incision is healed, you can work, exercise and bathe normally.

At that time, you should notice a "thrill," which feels like a vibration just above your incision line. It's caused by blood flowing through your graft and indicates that your AV graft is working.

At home everyday

It's important that you take good care of your access to keep it working well. Check your access regularly for the following:

In the hand below your graft arm (or the foot of your graft leg)

- A change in colour or temperature.
- Numbness or tingling.
- Swelling and/or pain.

At the graft site

- Redness, warmth, swelling and/or pain.
- Bleeding from your fistula.
- Loss of the thrill, or a change to its intensity.

Notify your surgeon and/or your nephrology team if any of the above occur.

At each hemodialysis treatment

Make sure that your access and needles can be seen at all times during your treatment.

At the end of each treatment, the needles will be removed. Apply light pressure for 10 minutes (or as instructed by your nephrology team) using the fingers from your other hand at each needle site to promote clotting.

If bleeding starts again after you leave your dialysis unit, apply light pressure for 20 minutes. If the bleeding doesn't stop, go to your nearest emergency department. Remember to report this problem to your nephrology team as well.

Important Reminders

Before surgery, do not allow anyone to take blood or place an intravenous line in your graft arm.

To care for your graft, avoid...

- Having your blood pressure taken on that arm.
- Having blood drawn or IV's inserted in that arm.
- Wearing tight watches and sleeves on that arm.
- Sleeping on that arm or keeping it bent for long periods of time.

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