

Some facts about the AV graft

Introduction

In order to have regular hemodialysis treatments, nurses need to have access to your bloodstream. To form this access, a surgical or other specialized procedure will be needed.

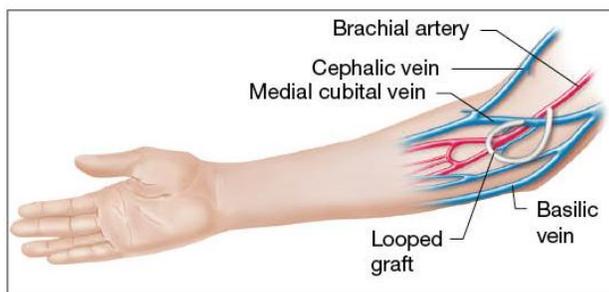
The three most common types of access are:

- Internal arterio-venous fistula (AV fistula)
- Internal arterio-venous graft (AV graft)
- Central venous catheter (also called central venous “line” or hemodialysis catheter)

The AV graft

When the most common method of access, the AV fistula, cannot be made, the AV graft is a suitable substitute.

An AV graft is a strong artificial tube inserted by a surgeon underneath the skin of your forearm, upper arm or thigh. One end of the tube connects to one of your arteries, and the other end connects to one of your veins (in the same limb). The graft may be straight or in the shape of a horseshoe.



The surgeon will decide whether to use your arm or leg for the AV graft. The decision depends on many factors including the size and condition of your veins and arteries.

There is a higher risk for infection and clotting with an AV graft than with an AV fistula.

Benefits of an AV graft

- A graft is usually the access method of choice if your veins are not suitable for a fistula.
- The graft can usually be used for hemodialysis two to four weeks after surgery.
- Once the incision is healed, there are no restrictions regarding showering or swimming.

Surgery to create an AV graft

A surgical procedure is needed to create the AV graft. An anesthetist will talk to you about the anesthetic that will be best for you during your surgery.

After the surgery, it usually takes two to four weeks for the graft to be ready for use. Then, each time you have a hemodialysis treatment the dialysis nurse will insert two needles into your graft.

Care of your AV graft

After the surgery, follow your surgeon's instructions about your dressing and when the stitches (sutures) will be taken out.

- Check for a "thrill" which is the sensation like a vibration caused by blood flowing through your graft and can be felt just above your incision line. The "thrill" indicates the AV graft is working.

Routinely check for and report to your nephrology team (surgeon, doctor or nurse) any of the following:

- A change in colour, temperature or sensation (numbness or tingling) and pain in the hand of your graft arm (or foot of your graft leg).
- An increase in swelling, pain or redness on your arm (or graft leg) and the presence of any fluid leaking from your incision.
- Fevers, chills or loss of a thrill.
- Bleeding that occurs from your graft when you are not in the dialysis unit.
- Needle sites that are not healing.
- Your surgeon or nephrology team member will give you other important instructions.

At each hemodialysis treatment

- Make sure that the nurses can see your access and needles at all times during your treatment.
- Unless instructed otherwise by your nephrology team, it is important that needles are put into your graft in different areas for each treatment.
- At the end of each treatment, the needles are 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 at the site.
- If bleeding starts again once you leave your dialysis unit, apply light pressure for 20 minutes and if bleeding does not stop, go to our nearest emergency department. Remember to report this problem to your nephrology team as well.

Important reminder

- Before surgery, *do not allow anyone to take blood or place an intravenous in your graft arm.*
- After surgery, *do not allow anyone to take blood, place an intravenous or check your blood pressure using your graft arm.*

For further information, or if you wish to help us in our efforts, please contact The Kidney Foundation of Canada office in your area. You can also visit our Web site at www.kidney.ca

With acknowledgement to Amgen Canada Inc. for permission to adapt this content, and to Dr. Brendan Barrett, Professor of Nephrology, Memorial University, Health Sciences Centre, St. John's, Newfoundland and Labrador for his assistance in reviewing this information.

© 2010

All rights reserved. This material does not constitute medical advice and is intended for informational purposes only. No one associated with The Kidney Foundation of Canada will answer medical questions via e-mail. Please consult a healthcare professional for specific treatment recommendations.