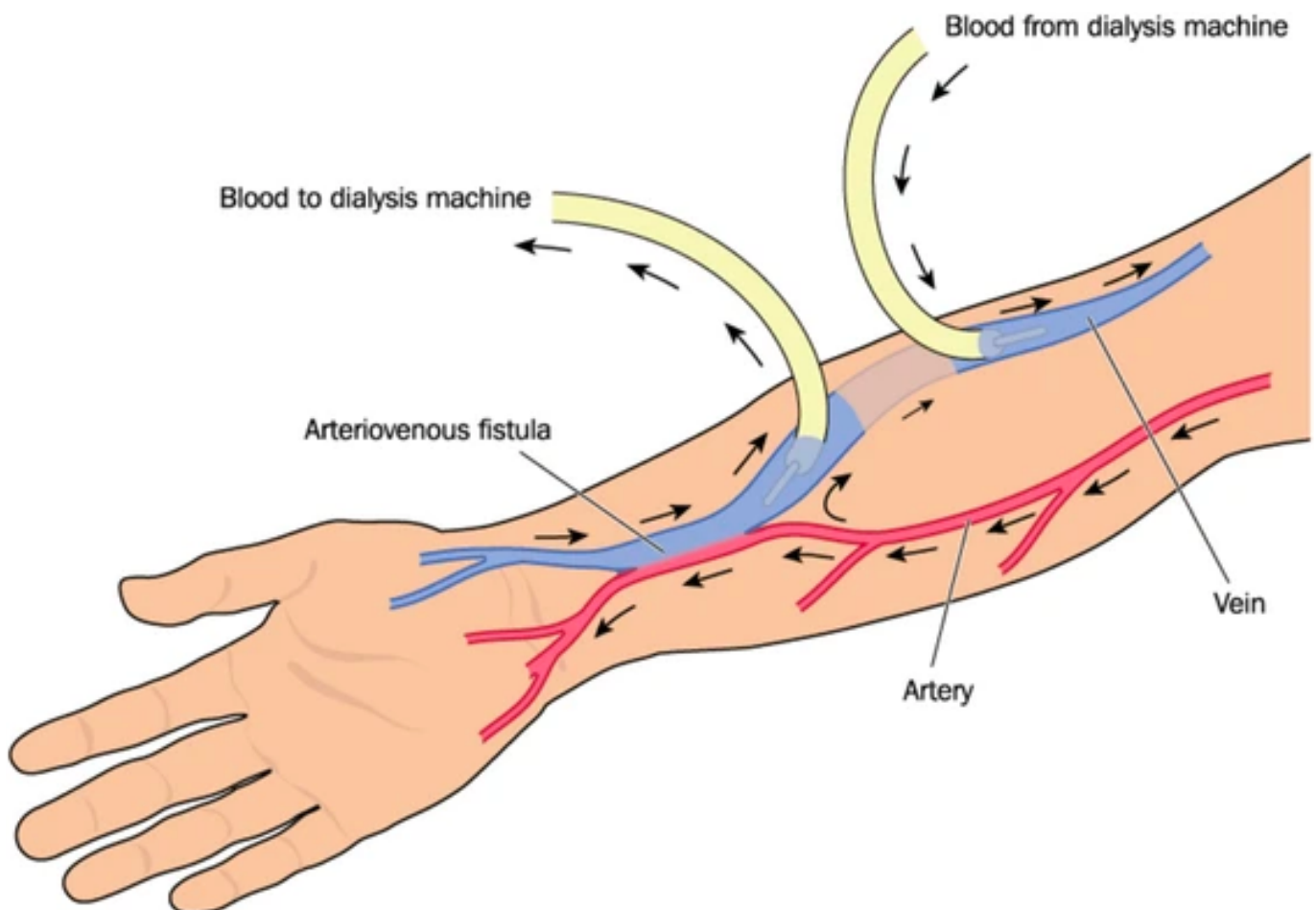


A Guide for Patients and Families

Care of Patients with Arteriovenous Fistula (AVF) / Arteriovenous Graft (AVG): Post Surgery Instructions

What is an Arteriovenous Fistula (AVF) creation?

An AVF is a type of dialysis access which requires the creation of an artificial connection between an artery (which carries blood away from the heart) and a vein (which carries blood back to the heart). This allows the vein to be enlarged and the vein walls to be thickened, so that adequate blood flow can be delivered during hemodialysis treatment.

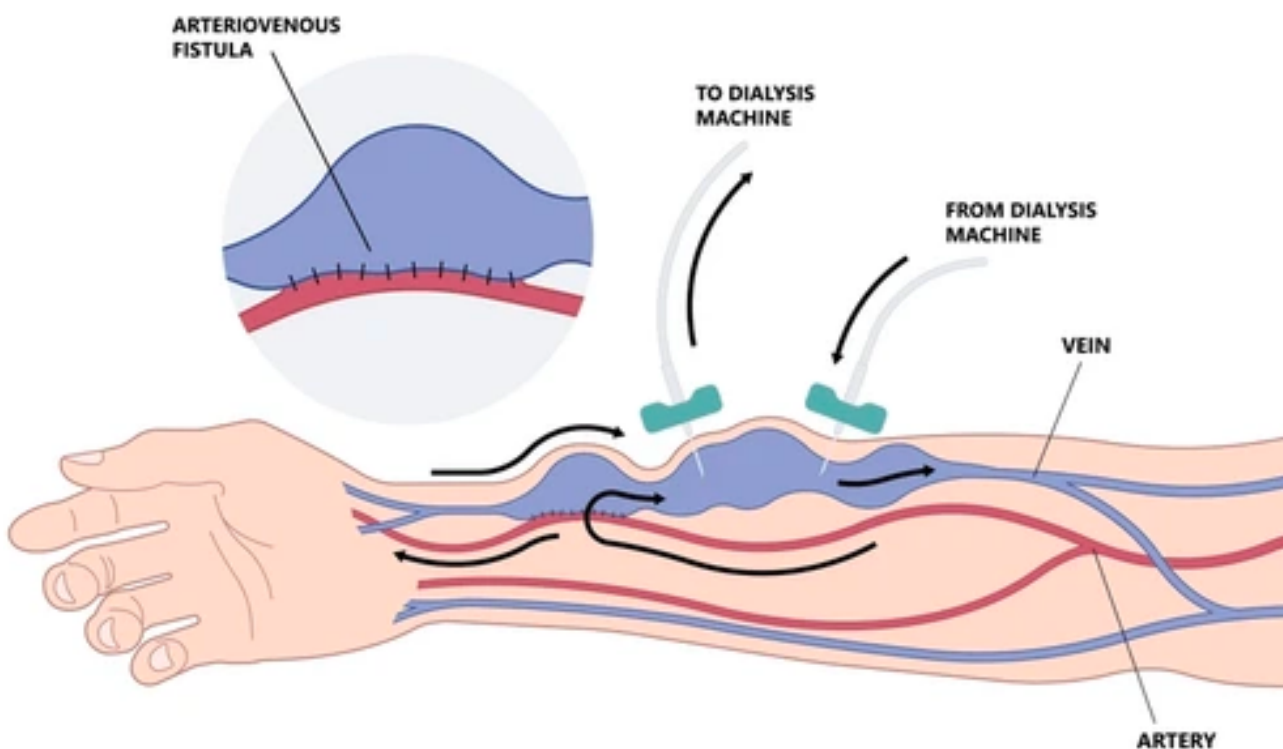


How is it created?

A vein and artery mapping ultrasound scan is performed on both arms to determine the quality and size of your arm vessels. Doing so will allow your surgeon to assess the blood flow in your arteries as he discusses with you the most appropriate position for your AVF/AVG. This will be guided by considerations such as the quality of your blood vessels, hand dominance, arm's functional ability and your occupation.

An AVF is created just under the skin by surgically joining an artery to a vein. It is usually done at the wrist or elbow. It takes about 6-12 weeks for the fistula to mature before it can be used for dialysis. As blood pressure is higher in the artery than in the vein, when a fistula is created, the vein enlarges and its wall gets stronger. The high blood flow through the vein gives the fistula a current-like buzzing.

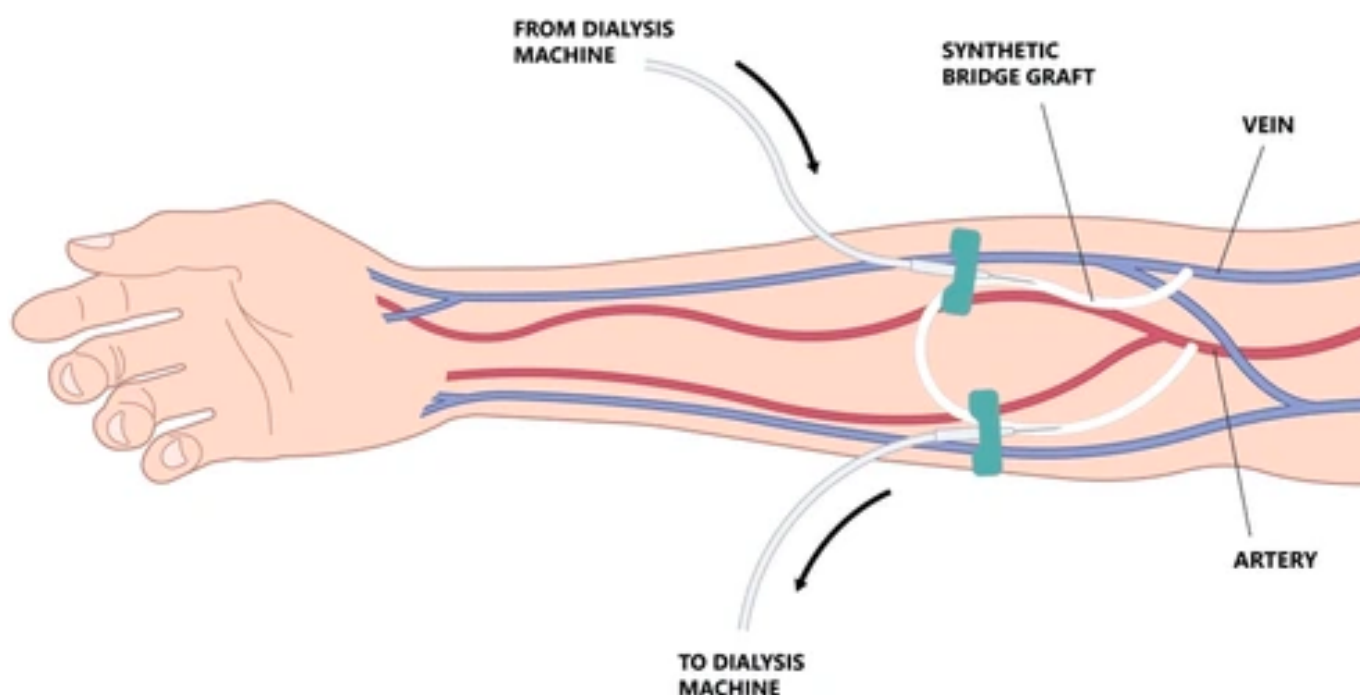
After the procedure, maturation of a fistula may take weeks or months before it can be used for hemodialysis treatment.



What is an Arteriovenous Graft (AVG) creation?

An AVG is done in cases where veins are too small or weak for a fistula to be created. It is created by joining an artery to a vein by using a soft artificial tube. It is usually put inside the bend of your arm or in your upper arm. Sometimes, it may be placed in your leg or chest wall. Grafts can be used soon after placement but they are more likely to have problems with clotting and infection.

An AVF/AVG provides the channel for blood flow to the artificial kidney for cleansing and return to the body after cleansing via two special needles during haemodialysis.



Care and Management:

An AVF is the best choice for haemodialysis. It is preferred because it usually lasts longer and has fewer problems like clotting and infections.

The following instructions provide general information and advice regarding care after the procedure to prevent complications.

Wound care

- Keep dressing clean and dry. The dressing should be changed once it is dirty or blood-stained.
- In some cases, the skin stitches used are absorbable and do not need to be removed. Otherwise, you will be given an appointment to remove your stitches.



- If in doubt, please check with the medical team prior discharge. Once stitches are removed, the fistula arm can be washed with soap and water.
- Do not use the arm with fistula to carry or lift heavy weights for at least two weeks post-surgery.

- A week post-surgery, exercise the hand with a rubber ball several times a day for a few minutes or bend the elbow while holding a 1.5L bottle 3 sets a day, for 20 times for each sets. (may use something lighter if unable to hold 1.5L bottle). Both methods will promote maturation of the fistula.
- After two weeks post-surgery, usual daily activities can be performed. Using the affected arm will improve the blood circulation to the fingers and will also prevent the arm from becoming stiff.



Diet

Resume your renal diet as advice.



Pain management

Take your prescribed medication.

Caring for your AV Fistula/Graft

Ensure that blood circulation in the arm is not cut off once fistula is placed. This may damage the fistula and cause it to stop working.

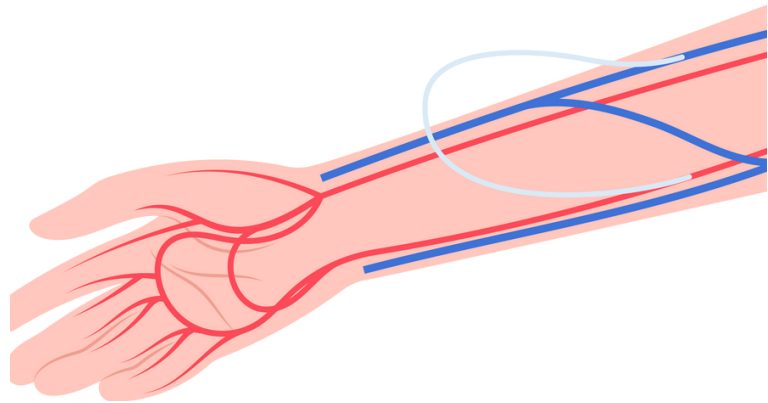
- Protect your access arm from cuts, bumps, direct blows and cold.
- Avoid direct impact and sleeping with your weight pressed on the fistula arm.
- Do not allow blood/blood pressure to be taken your fistula arm.
- Do not wear watches, jewellery or clothes with tight sleeves on the fistula arm.





- Do not carry heavy objects over your fistula arm.
- Do not expose the fistula to sharp or hazardous machinery.
- Check your access arm for colour, temperature, and appearance of the fistula.
- Set a timetable and make it a daily routine to check the buzzing sensation ideally before mealtimes and bedtime.

An AVF/AVG is meant to be the permanent access for haemodialysis but it is possible they may fail sometimes, so it is important to take good care of it.



You may wish to proceed to your own attending or nearest hospitals for medical attention and advice.

Please seek immediate medical attention if you experience the following:

- Absence of buzzing/ thrills in the access.
- The appearance of the fistula alters dramatically, e.g. becomes a large lump.
- Unusual pain not relieved with medications, finger numbness or tingling sensation in the hand.
- Chills and fever of 38 degrees Celsius and above.
- Signs of infection such as swelling, redness and discharge from fistula site.
- The fingers become cold and appear bluish.



- If there is bleeding from your needling sites after dialysis, apply a gauze dressing over the bleeding point and apply pressure.
- Seek medical attention at the A&E immediately if the bleeding does not stop.

