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WHAT DO I NEED TO KNOW ABOUT MY VASCULAR ACCESS? FISTULA/GRAFT

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WHY DO I NEED VASCULAR ACCESS?

For dialysis to work properly we need to create a way to take blood from your body, pass it through the dialyzer, where it is cleaned and then return it to safely. As this will need to be done each time you come for treatment it is important that we have a safe, clean and easy way of doing this each time. It is also important that we can do this safely.

Therefore, a permanent access is created by a small operation that will allow us to dialyse you safely and efficiently.

There are three main types of access, and we will look at each of these in turn:

- **Arterio-venous fistula (AV fistula)**
- **Arterio-venous graft (AV graft)**
- **Central venous catheter**

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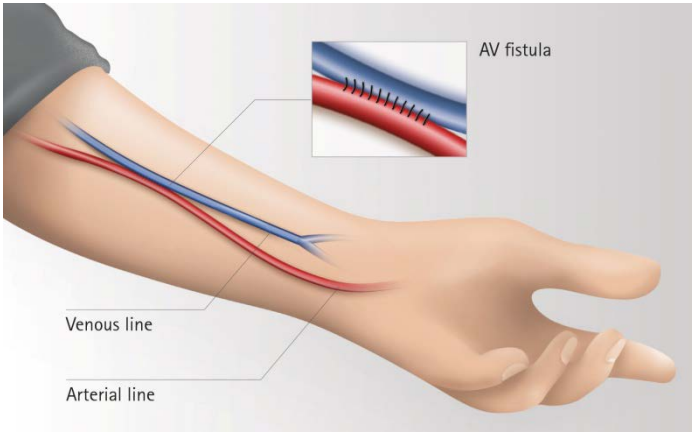
WHAT IS AN ARTERIO-VENOUS FISTULA?

When you return to work should be your decision, but talk it over with your care team first, and in the majority of cases returning to work is encouraged. Many people want to return to work as soon as possible, as it helps them to feel that their lives are now normal again. Some people prefer to take some time off, before making the final decision. Only you can really make this choice, but it is important that you discuss it with your family, your care team and your employer.

If you were in a very heavy duty job before dialysis you may need to think carefully if you can continue in the same job and cope with the demands on you. Also because of the dialysis treatments it is important to explain this to your employer, and discuss it with the care team. You dialysis treatment times can be changed to fit in with your work.



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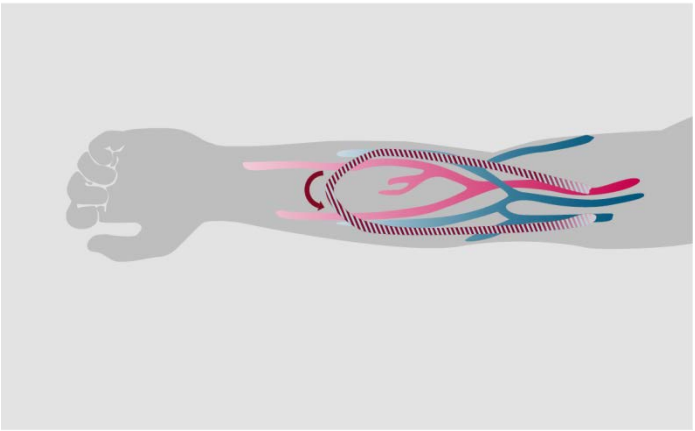
WHAT IS AN ARTERIO-VENOUS GRAFT?

A graft is a small piece of plastic inserted between an artery and a vein in your arm or thigh. A small proportion of people have to have these if their own veins are absent or not strong enough for a fistula. The graft is placed close to the surface of the skin for easier needling.



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WHAT IS A CENTRAL VENOUS CATHETER?

A catheter is used when, for some reason, a fistula is not possible. It is a permanent device and will hopefully last as long as you need it. It involves inserting and securing a soft plastic tube (catheter) about the thickness of a pencil into a large vein in the base of your neck. About 6 inches of the tube protrudes from your skin and a dressing is placed over the site where it enters your skin.

The dressing should be kept clean and dry and extra care is needed when bathing and washing your hair.

The tube is easily disguised by clothing

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HOW DOES MY FISTULA/GRAFT WORK DURING DIALYSIS?

During dialysis, two needles are placed into the fistula. One needle will remove the blood so it can be cleaned. The other needle will return filtered blood to the body.

The needles are attached by plastic tubing to a special filter called a dialyzer.

A pump pushes the blood through the dialyzer. Blood passes on one side of the filter, and solution made by the machine passes on the other side.

The blood does not mix with the solution. Instead, the solution pulls extra fluid and waste out of the blood by a process called dialysis.

The "clean" blood returns through the plastic tube. It passes back into the patient's body through the second needle.

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HOW LONG CAN AN ARTERIO-VENOUS FISTULA LAST?

Once the fistula has developed, it can last a very long time. Some patients have a fistula that is still working after 30 years! However, if you are elderly when you have your fistula created or if you suffer from other medical conditions such as diabetes, the fistula may not last that long.

That said a fistula or graft is still the best option for hemodialysis access because:

- The risk of infection is lower than with a catheter
- It is less likely to clot
- It allows for a greater blood flow during dialysis. This makes dialysis more effective
- A fistula usually has a longer „life" than a graft, but both last longer than a catheter

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WHAT ARE THE ADVANTAGES AND DISADVANTAGES OF EACH TYPE OF ACCESS?

Type of access	Pros	Cons
Fistula	▪ Last longer ▪ Less infection risk ▪ Excellent blood flow ▪ Less likely to clot off	▪ Takes time to develop after surgery ▪ Needles are inserted to connect for dialysis
Graft	▪ Last longer than catheter ▪ Excellent blood flow	▪ Needles are inserted to connect for dialysis ▪ More risk of infection than a fistula
Catheter	▪ Can be used straight away ▪ No needles required for dialysis	▪ Higher infection risk than a fistula or graft ▪ Can clot off ▪ Care needed when bathing or showering

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HOW DO I CARE FOR MY FISTULA OR GRAFT AT HOME?

- Check the fistula is working every day by feeling over the area and by listening to it close to your ear. You nurse or doctor will show you how to do this. Keep you fistula arm clean and wash it every day. Your nurse will be able to give you advice on the best type of soap to use.
- Watch for signs of infection. These may be tenderness, swelling, redness over the fistula. You may also have a fever.
- If you think the fistula has stopped working, or you have an infection immediately contact the dialysis centre for advice.
- Avoid wearing tight clothing or a wristwatch on the access arm.
- Avoid having your blood pressure taken on the arm with the fistula.
- Avoid having blood samples taken from the arm with the fistula (except during HD treatment or with the renal unit's approval).
- Avoid sleeping on the fistula arm.
- Avoid carrying heavy shopping bags on the fistula arm.

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DO I NEED TO DO ANYTHING SPECIAL WITH MY FISTULA OR GRAFT ON MY DIALYSIS DAYS?

Always wash your access arm before each dialysis treatment.

Don't touch the skin around your access after the nurse has cleaned your arm ready to insert your needles.

Don't cough or sneeze on the access site during dialysis.

When you needles are removed apply only gentle pressure to stop bleeding. And press only where the needle was.

When you get home don't scratch around the needles sites, and don't pick off the scabs.

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WHAT SHOULD I DO IF MY FISTULA/GRAF STOPS WORKING WHEN I AM AT HOME?

If you check you fistula and think and you cannot hear or feel the blood going through the fistula, it may have clotted or stopped working.

Phone the dialysis centre immediately for advice. It may be possible to „rescue" the fistula.

Don't wait until "tomorrow because that is your usual dialysis day", it will be too late then.

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SO WHAT NEXT?

Now you have read through this a nurse or doctor will come back to answer any other questions you might have. Remember, you can ask questions at any time.

There will be other booklets for you to read later that will include the following topics:

- Hemodialysis – a brief introduction
- How does hemodialysis work?
- Looking after your vascular access
- Managing you fluid intake
- The dialysis diet
- Increasing your independence
- Transplantation

We hope that this will help you to adapt to dialysis, helping you to feel better.

Remember, you can ask questions about your treatment at any time.

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