



HEMODIALYSIS AND ARTERIOVENOUS FISTULA

ANATOMY

The kidneys are two organs located in the lower back on either side of the spine. Their main role is to filter and clean the blood of waste products produced by the body and to eliminate excess water. Once this waste has been filtered by the kidneys, it is excreted in urine.

When the kidneys no longer function normally, dialysis becomes necessary.

DIALYSIS

Dialysis is an artificial process of eliminating waste and excess fluid from the body that acts as a substitute for kidneys. There are two types of dialysis: peritoneal dialysis and hemodialysis.

Peritoneal dialysis uses the peritoneum (membrane of the abdomen) as a filter to remove toxic substances from the blood.

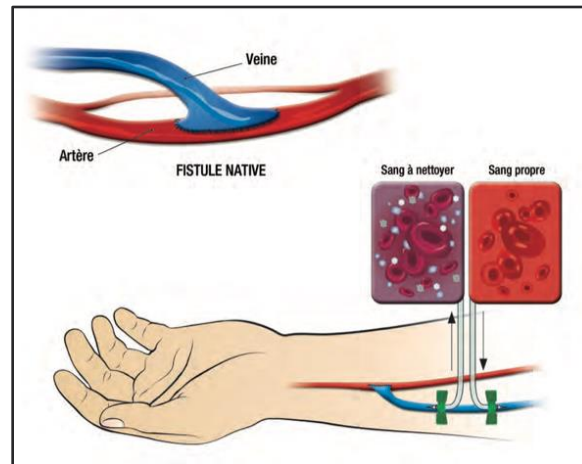
In hemodialysis, blood is transferred from the body to a dialysis machine (also called an artificial kidney), which cleans the blood and then returns it to the body. An access must be created in a large vein in order to return the cleaned blood to the body.

This access can be provided by an arteriovenous fistula or a central venous catheter. An arteriovenous fistula is usually the first choice.

WHAT IS AN ARTERIOVENOUS FISTULA?

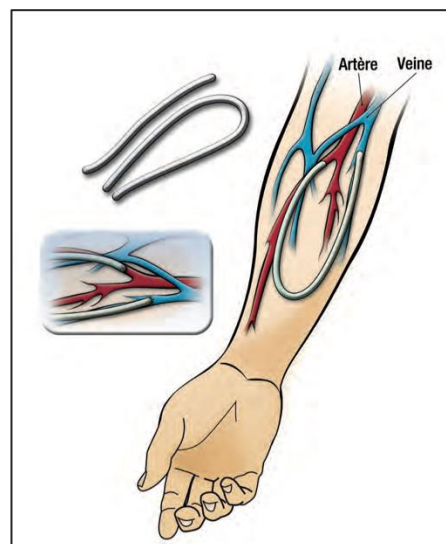
The word "fistula" means communication. The word "arteriovenous" refers to arteries and veins. An arteriovenous fistula consists in connecting an artery to a superficial vein of the arm. There are two types of arteriovenous fistulas:

- Native arteriovenous fistula



Source: https://www.chudequebec.ca/getmedia/e7cf36f4-9c13-4695-9c8b-8b078296cf0e/823_03_005_BD_acces_vasculaire.aspx

- Synthetic or prosthetic arteriovenous fistula.



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SURGERY TO CREATE AN ARTERIOVENOUS FISTULA

This is one-day surgery that is usually performed under local anesthesia. The vascular surgeon connects an artery to a superficial vein under the skin of the arm or forearm. The blood flowing rapidly and at a high rate of flow in the artery is thus transferred to the vein. After a while, the pressure of blood in the superficial vein causes it to dilate and thicken. You can see the enlargement under the skin. This is called a native arteriovenous fistula.

In some patients, a synthetic prosthesis (a short tube) may be needed to bridge the gap between the vein and the artery. This is a synthetic or prosthetic arteriovenous fistula. It can also be seen under the skin.

Regardless of the type, the fistula should be allowed to heal and become solid before it is used for dialysis. The doctor will be the judge of that. The fistula becomes the permanent access for all dialysis sessions (which take place several times a week).

DAILY CARE OF YOUR FISTULA

1. WATCH FOR THE FOLLOWING AT THE FISTULA SITE

- Redness
- Discharge or oozing (fluid or blood)
- Numbness
- Swelling
- Heat
- Pain

If this happens, notify your nephrology team or go to the nearest emergency room.

2. MAKE SURE THE *THRILL* IS PRESENT

The *thrill* is a vibration that can be felt at the fistula site. It is caused by the blood flowing rapidly through the fistula. If you don't feel it, it means that the blood is not circulating as well. If that is the case, notify your nephrology team.

3. TREAT BLEEDING THE FISTULA SITE

Apply light pressure for 20 minutes. If the bleeding persists, go to the emergency room and inform your nephrology team.

OTHER PRECAUTIONS

- Do not let anyone draw blood from or administer intravenous medication in veins in your fistula arm.
- Do not wear a watchband or tight jewelry on your fistula arm.
- Avoid sleeping or lying on your fistula arm.
- Avoid keeping your fistula arm bent for extended periods of time.
- Do not let anyone take your blood pressure with a cuff on your fistula arm.
- Do not take part in contact sports.
- Avoid heavy lifting with the fistula arm.
- Keep your fistula arm clean.

IF YOU HAVE ANY QUESTIONS



Contact our team at 819-346-1110, extension 13085.



If you are concerned about your condition, go to the emergency room.

Authors

Esther Marineau, medical student

Dr. Julien Barrière-Groppi, vascular surgeon

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Direction des ressources humaines, des communications et des affaires juridiques

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