Vascular Access

Patient Education **Program**

How to Live Well on Hemodialysis

A vascular access is an entry to your blood stream and is required for hemodialysis (HD).

An adequate permanent vascular access is the key to living well on HD. There are 3 kinds of vascular accesses – fistula, graft and catheter. Fistulas are the "gold standard" of vascular access and are preferred for every HD patient, unless there is a medical reason to not have one.

It is important to learn all you can about vascular accesses, so that you can take the best care of yourself.



This booklet will answer these questions:

- What is a fistula? What is a graft? What is a temporary HD catheter?
- Why are fistulas the preferred type or "gold standard" of access?
- Who is a vascular surgeon, and why do I need to see one?
- How do I take care of my fistula?

Information Provided By: Greenfield Health Systems

Dedicated to Dialysis

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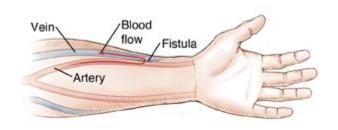
Fistulas are the "gold standard" of vascular accesses.

Understanding Types of Vascular Access

What is a Fistula?

A fistula is the best long-term vascular access option.

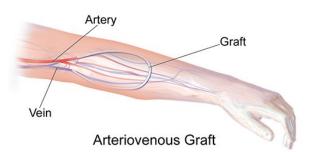
- A fistula is made by joining a vein and an artery in your arm, and takes 2 to 4 months to develop properly.
- A fistula provides greater blood flow than other accesses which allows blood to be cleaned better.



What is a Graft?

The next best vascular access type is a graft. If a fistula is not an option, a graft may be possible.

- A graft is made of a soft tube implanted in your arm joining the vein and artery.
- Some grafts can be used right away, while others take 2 to 3 weeks to heal.



What is a **Temporary HD Catheter**?

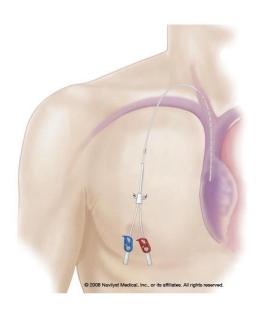
The third kind of access is a temporary HD catheter. It is <u>not intended for permanent use</u> because of risk factors.

- A catheter is a tube put into a vein in your neck, chest, or upper thigh near the groin.
- The tip of the catheter goes directly into the heart. Part of it is placed under the skin.
- A catheter can be used right away.

An HD catheter has the highest risk of complications, including severe infections and increased risk of death.

Those who use a catheter:

- Are more likely to get an infection
- Have a lower blood flow (dialysis treatments are not as effective as with other types of vascular access)
- Spend more days in the hospital



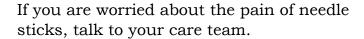
Take care of your access site.

Think Fistula First

Fistulas are the "gold standard" of vascular access for people on HD because it is the most effective and reliable access option. It also has the fewest risks compared to other types of vascular access.

A fistula will:

- Lower the chance of a life-threatening access infection
- Permit HD at a better blood flow rate and improve how well the dialysis treatment is cleaning your blood
- Offer the chance to take an active role in caring for and monitoring your dialysis access





To get a fistula or graft, your nephrologist (kidney doctor) will refer you to a **vascular surgeon**. The vascular access surgeon specializes in vein and artery surgery for vascular access.

How to Take Care of Your Fistula or Graft

When you have a fistula or graft, follow these tips to care for your access:

- Clean access with soap and water before each treatment. Wash hands before and after treatment.
- Feel your access everyday for the "The Thrill' (buzzing/vibration).
- Rotate or move needle sites each treatment (rope ladder technique). This will help your access work longer.
- Do not carry heavy things over your access arm or wear bracelets, jewelry, or tight clothes on your access arm.
- Do not use your access site for anything other than dialysis.

If you just had your fistula surgery:

- 1. Keep the access arm raised on a pillow to reduce swelling.
- 2. Exercise helps the access develop. Start arm exercises as recommended by the doctor. For the hand ball exercise, squeeze a rubber ball or a rolled up wash cloth.

Stay Healthy on Dialysis—<u>Avoid</u> Using a Hemodialysis Catheter

Using an HD catheter puts you at risk. Educate yourself on the dangers of catheters, and take steps to get another type of access if you have other options.

More about the "Cons" of HD Catheters:

- **Greatest Risk of Infection**: People who use an HD catheter are <u>15 times more likely</u> to get an infection. A catheter is a direct line for germs to enter your body. This means more time in the hospital, and a greater chance of death.
- **Greater Risk of Clotting**: Blood sits in the catheter after use and may clot. Even with anti-clotting medications, this can be a problem. This means more time getting clotting issues addressed. It may result in having to get your catheter replaced.
- **Lower Blood Flow**: Lower blood flow during HD means your blood does not get cleaned as well as it would with a different type of access. When your blood is not cleaned as well, this makes you feel worse.
- **Harder to get a transplant**: If your goal is to get a kidney transplant, a catheter is not for you. An HD catheter makes you a less desirable candidate for transplant.



If your doctor tells you an HD catheter is your only option, follow these guidelines to take care of your catheter:

- **Always** wash your hands before and after each dialysis treatment. Always wear a mask when your care team is working with your catheter
- **Do not** let anyone touch your catheter without wearing a mask and clean gloves
- **Do not** take showers
- **Do not** remove the catheter cap. If your catheter caps come off, contact your dialysis care team.
- **Report** any signs of infection to care team members such as redness, pain, drainage or swelling around the catheter area

If your catheter comes out while you are at home:

- Apply direct pressure on the catheter site
- Call 911 or go to the emergency room