Vascular Access for Hemodialysis

Your Fistula

What is a vascular access?

A **vascular access** is a way for the health care team to access your bloodstream over and over again. Each time you have a hemodialysis treatment this access is accessed and is connected by a tube to a dialysis machine. One tube takes the blood to the dialysis machine to be cleaned. Another tube returns the clean blood to your body. This process of taking blood to and from your body to the dialysis machine is continuous during a dialysis run.

There are three types of vascular access:

- A fistula
- A graft
- A catheter

This pamphlet gives you information about fistulas.

What is a “fistula”?

A surgeon joins a vein to an artery. This allows blood to flow from the artery to the vein. This causes the vein to become bigger and stronger. This big vein is called a **fistula**. Two hemodialysis needles are inserted into the fistula each dialysis treatment.

A fistula is the best choice for vascular access. Fistulas usually work better and last longer than either a graft or a catheter. They also tend to have fewer problems such as infections and clotting.

Usually fistulas:

- Are made in the arm that has the best blood vessels; if both arms have good blood vessels, it will be made in the arm you use the least (if you are right handed, it will be made in the left arm).
- Are done as day procedures (you don’t usually have to stay in hospital overnight).
What do I need to do after the surgery?

1. **Watch for swelling.** Your arm could swell after the operation. If this happens, try to keep your arm straight and raised on a pillow above the level of your heart, even when sleeping.

2. **Monitor your discomfort level.** Take the pain medication your doctor suggested. If this does not work, tell your doctor or nurse.

3. **Check your fingers.** Your fingers on your fistula arm should be the same colour and temperature as the fingers on your other hand. You may have some numbness, coolness, and discomfort in the beginning, but this should improve over time. Severe numbness or pain is not normal.

4. **Take care of your bandage.** Ask your surgeon or nurse about how to care for your bandage. Some prefer the bandage to be changed regularly (usually every two days) and others prefer it be changed only when it gets wet. If the wound is dry and healing, take the bandage off but keep the area clean and dry. Ask your surgeon or nurse about bathing or showering.

5. **Take care of your stitches.** Ask your surgeon if he/she used self-dissolving stitches, regular stitches or clips. If regular stitches or clips were used, ask when they will be removed. When the stitches are removed, make it a habit to wash the fistula area every day with mild soap and water. If self-dissolving stitches were used, wait until the wound is fully healed before washing your arm.

6. **Attend your follow-up appointments.** You will be booked for follow-up appointments -- usually about two and six weeks after the fistula was created. Appointments may be at your doctor’s office, kidney clinic, dialysis unit, or vascular access clinic.

7. **Check your fistula.** You will be taught to check if your fistula is working by feeling for a buzzing sensation called a “thrill.” It’s a good habit to check for the thrill every morning and every evening.
How do I keep my fistula healthy?

- Check for the thrill everyday, or even several times a day.
- Think about anything you wear that could put pressure on your fistula and AVOID it! Constant pressure (even slight) can slow the blood flow. You may want to wear your watch on your other arm, not button cuffs, and not put straps from bags or purses over the shoulder of your fistula arm.
- It’s important to stay active, but contact sports may not be a good idea. Hard hits to your fistula will damage it. Discuss activities with your doctor or nurse.
- Think about the position you fall asleep and wake up in. Is there pressure on your fistula arm? It can be hard to change sleeping positions, so try falling asleep on your back with your fistula arm raised up on a pillow.
- Save your fistula arm for dialysis and let others know this. Do NOT take blood pressure on this arm. Do NOT have blood work taken from this arm or have an intravenous started in this arm. It is OK to tell other health care workers this, as not everyone will know what a fistula is.
- Wear a Medical Alert bracelet or a “purple” bracelet from BC Renal or carry a card in your wallet to let health care workers know that you have a fistula. Note where the fistula is located.

What do I need to do before a dialysis treatment?

- Wash your hands and your fistula with warm water and antibacterial soap.
- Ask your hemodialysis nurses to rotate where needles are inserted or think about learning how to needle yourself. Some patients prefer to do it themselves.
What do I need to do after a dialysis treatment?

- Learn to hold your own needle sites using gentle pressure for 10 minutes. Press at the needle spot and just above.
- When the bleeding stops, tape the gauze in place, but avoid wrapping the tape all around your arm.
- Take the gauze off 4-6 hours after your dialysis treatment.
- You can expect scabs to form where the needles were inserted. Avoid scratching or picking the scabs.
- Your fistula may bleed after dialysis. Your hemodialysis team will tell you how to manage this.

When should I call my kidney doctor (nephrologist) or dialysis unit?

- You can’t feel the “thrill” or if it feels different from usual.
- There is any redness, warmth or pain in your fistula arm.
- There is any oozing or drainage from your graft. You have noticeable swelling or itching in your fistula arm.
- You have difficulty moving the fingers in your fistula arm.
- You are feverish, and have any of the above symptoms.