



Patient & Family Guide

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# Care of Your Arteriovenous Fistula



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## What is an arteriovenous fistula?

- An arteriovenous (AV) fistula gives access to your bloodstream for hemodialysis. It is made by joining an artery and a vein during surgery.
- Blood flows much faster and stronger in the arteries than it does in the veins. When an artery and a vein are joined, blood from the artery makes the vein swell and get bigger. The big vein is called the fistula.
- An AV fistula is the best way to access the bloodstream for long-term hemodialysis. It is a better way because of its low risk of infection and complications compared to other types of dialysis access.
- Blood flowing through the fistula makes:
  - › a bruit (like a buzzing or swooshing sound).
  - › a thrill (a buzz which you can feel when you touch your arm).
- The fistula will be made in your forearm, in the bend of your elbow, or above the bend of your elbow. Your surgeon will check your veins before surgery and decide where to make the fistula.

- We recommend that your fistula be made **at least 6 months** before it is needed for dialysis.

## When will my fistula be ready to use?

- After 2 to 6 weeks, your surgeon or nephrologist (kidney doctor), or a nurse who specializes in fistulas, will check your fistula.
- It usually takes 8 weeks (2 months) for the fistula to grow and be ready to be used for dialysis.
- When the fistula is ready to use, 2 hemodialysis needles will be inserted (put in) into the fistula during each dialysis treatment (see images below).



## After surgery

- Keep your arm raised up on a pillow as much as you can. This helps to lower swelling.
- Keep an eye on your pain levels. If it is mild to moderate, take the pain medication your health care provider suggested. If the pain medication does not help, tell your doctor or nurse right away.
- Keep moving your fingers. The fingers on your fistula arm should be the same colour and temperature as the fingers on your other hand. At first you may have some numbness, coolness, and pain, but this should get better over time. **Severe (very bad) numbness or pain is not normal.**
- Attend your follow-up appointment with your surgeon and/or nurse. Appointments are usually booked for 2 to 6 weeks after your fistula is made.
- We will teach you how to check if your fistula is working by feeling for the thrill (buzz). Check for the thrill every morning and every evening. If you cannot feel the thrill, contact your health care provider in the Renal Program.

## **Caring for your incision (cut)**

- Ask your surgeon or nurse about how to care for your dressing and incision. You may need to clean the incision with normal saline (salt water) and apply a new dry dressing, as needed. We will teach you how to do this. You may want to change the bandage regularly (every 2 days) or only change it when it gets wet.
- If the incision is dry and healing, take the dressing off, but keep the area clean and dry. Ask your surgeon or nurse how to bathe and shower with the dressing on.
- If you have Steri-Strips™ (strong pieces of tape) over the incision, they should fall off on their own in about 5 to 7 days.
- If you have stitches, they should be removed in 14 to 21 days (2 to 3 weeks). Check with your health care provider in the Renal Program. Your stitches may dissolve (go away on their own) and may not need to be removed.
- After your incision is healed, wash your fistula area every day with mild soap and water.

## Exercising your fistula arm before and after surgery

- Before surgery, an exercise routine may help you to get your arm ready for the fistula.
- Exercising your fistula arm **before** your fistula is made may help to make the vein bigger and improve your chances of having a working fistula. Start doing arm exercises as soon as you know you will need a fistula.
- After surgery, you can start exercising **after your stitches are removed and/or the incision is well-healed**. This is usually about 2 weeks after surgery.
- Exercising your fistula arm **after** your fistula is made may help to improve muscle tone and make it easier to insert the needles into the vein for dialysis. Ask your doctor when it is OK to exercise your arm.

## How to exercise:

- Hold a soft ball or rolled wash cloth in your fistula hand.
- Let your arm hang down beside your body.
- Squeeze the ball or rolled wash cloth.
- Hold for 5 seconds, then relax.
- Do this 10 times.
- Repeat this exercise 3 to 4 times a day.



## Do:

- Check your fistula a few times a day for a thrill or bruit.
- Feel your fistula for a thrill if you:
  - › Have low blood pressure
  - › Feel lightheaded
  - › Feel dizzy
- Wear a MedicAlert® bracelet or necklace that states you have a fistula.
- Clean your fistula arm with soap and water before each hemodialysis treatment.
- Remove the dressing from your fistula 24 hours (1 day) after your dialysis treatment.

## Do not:

- **Do not** let anyone take your blood pressure or a blood sample, or start an intravenous (IV) in your fistula arm. Use the back of your non-fistula hand or the lowest part of your non-fistula arm for blood work or IV infusions.
- **Do not** apply constant pressure on your fistula. Constant pressure can slow the blood flow in your fistula. **Do not** wear a watch or tight clothing or place a purse strap over your fistula. This could slow blood flow to your fistula.



- **Do not** sleep on your fistula arm.
- **Do not** bend your arm more than 90° for more than a few minutes.
- **Do not** use a razor on your fistula arm.
- **Do not** pick any scabs on your fistula arm.
- **Do not** play contact sports (like volleyball or football) that may involve hard hits to your fistula. Try sports like golf or swimming instead.

### **If you have bleeding at your fistula site:**

- Learn how to “hold” your own sites. Your dialysis nurse will teach you how to hold your fistula.
- Apply firm pressure with 2 fingertips for 15 minutes. **Do not** check the fistula site for 15 minutes.
- After 15 minutes, check the fistula site to see if the bleeding has stopped. If the bleeding has not stopped, keep applying pressure with 2 fingertips as above.
- Check your thrill to make sure you can still feel it while you are applying pressure to the fistula site.
- **Do not** apply a pressure dressing, as this may slow the blood flow to your fistula.

**If the bleeding does not stop, keep applying pressure with your fingers. Go to the nearest Emergency Department right away, or call 911.**

**Call your doctor, go to the nearest Emergency Department, or call 911 if you have:**

- › Redness, drainage, bleeding, or tenderness at the fistula or fistula incision site.
- › No bruit or thrill, or if they feel different.
- › Swelling, tingling, or numbness in your fistula arm or hand.
- › Trouble moving the fingers in your fistula arm.
- › Fever (temperature above 38° C/100.4° F) or chills.

