

Focus On Access

Living Healthy. Living Well.

- Ask yourself these questions:
- Do I know what types of vascular access for hemodialysis are available?
- Do I know the possible complications for a hemodialysis vascular access?
- Do I know what to do to protect and take care of my vascular access?
- If you answered no to any of these questions,

READ ON!

A vascular access is required to do hemodialysis. It is the site on your body where blood is removed and returned during dialysis. To maximize the amount of blood cleansed during hemodialysis, the vascular access should provide high volumes of blood flow continuously during treatments.

Your vascular access becomes your lifeline. Therefore, it is important that you have a good understanding of all there is to know about your vascular access.

There are 3 basic kinds of vascular accesses for hemodialysis: an arteriovenous (AV) fistula, an AV graft, and a venous catheter. The AV fistula is considered the best long-term vascular access for hemodialysis because it provides adequate blood flow for dialysis, lasts a long time, and has a complication rate lower than the other access types. If an AV fistula cannot be created, an AV graft or venous catheter may be needed.

Arteriovenous (AV) Fistula

An AV Fistula requires advance planning because a fistula takes a while after surgery to develop. But a properly formed fistula is less likely than other kinds of vascular accesses to form clots or become infected. Also, fistulas tend to last many years, longer than any other kind of vascular access.

A surgeon creates an AV fistula by connecting an artery directly to a vein, usually in the forearm. Connecting the artery to the vein causes more blood to flow into the vein. As a result, the vein grows larger and stronger, making repeated needle insertions for hemodialysis treatments easier.

Arteriovenous Graft

If you have small veins that won't develop properly into a fistula, you can get a vascular access that uses a synthetic tube implanted under the skin in your arm. The tube becomes an artificial vein that can be used repeatedly for needle placement and blood access during hemodialysis. A graft doesn't need to develop as a fistula does, so it can be used sooner after placement, often within 2 or 3 weeks.

Compared with fistulas, grafts tend to have more problems with clotting or infection and need replacement sooner, but a well-cared-for graft can last several years.

Venous Catheter

Some patients may need dialysis before their permanent access is ready for use. In this case, a temporary access can be created by putting a catheter into a vein in either the neck or chest. For some patients, fistula or graft surgery is not successful, and long-term

catheter access must be used. Catheters that will be needed for more than 3 weeks are designed to be tunneled under the skin to increase comfort and reduce complications

Possible Complications

All three types of vascular access – AV fistula, AV graft, and venous catheter – can have complications that require further treatment or surgery. The most common complications are access infection and low blood flow due to blood clotting in the access.

- Venous catheters are most likely to develop infection and clotting problems that may require medications and catheter removal or replacement.
- AV grafts may also develop low blood flows , an indication of clotting or narrowing of the access. In this case the AV graft may require angioplasty, a procedure to widen the small segment that is narrowed. Another option is to perform surgery on the AV graft and replace the narrow segment.
- Infection and low blood flow are much less common in AV fistulas than in AV grafts and venous catheters. Still, having an AV fistula is not a guarantee against complications.

Taking Care of Your Access

You can do several things to protect your access.

- Make sure your nurse or technician checks your access before each treatment
- Keep your access clean at all times
- Use your access site only for dialysis
- Be careful not to bump or cut your access
- Don't let anyone put a blood pressure cuff on your access arm
- Don't wear jewelry or tight clothes over your access site
- Don't sleep with your access arm under your head or body
- Don't lift heavy objects or put pressure on your access arm
- Check the “pulse” in your access every day
- Report any changes to your access, such as: redness, swelling, pain, drainage or absence of pulse to your healthcare team immediately.
- Learn how to correctly hold pressure to needle sites to stop bleeding. Each needle site should be held at least 10 minutes. Shortening this time may cause “break-through” bleeding and could compromise the longevity of the access.

Please take a moment to answer these True/False questions with your Primary Nurse.

1. The access with the least amount of complications and lasts longer than other access types is the AV graft.	True	False
2. The access most likely to develop an infection is the venous catheter.	True	False
3. A dialysis catheter should always be considered a temporary access.	True	False
4. A sign that your AV graft may be clotted is absence of a pulse over the access site.	True	False
5. It is O.K. to let trained lab personnel draw blood from your dialysis blood access.	True	False