

What is hemodialysis and vascular access?

Hemodialysis is a way to clean a patient's blood when the kidney is not working and access to the bloodstream is required. This is called vascular access and is critical to maintaining a healthy and uninterrupted dialysis schedule. Three types of hemodialysis vascular access are available to patients – fistula, graft and hemodialysis catheter.

A fistula is a connection made by a surgeon between an artery and vein in a patient's arm or leg. It's considered the best access choice because the risk of infection is low and it typically provides many years of reliable access.

A graft is an artificial tube that is placed under the skin of a patient's arm or leg when a suitable natural vein is not available for a fistula. Grafts have a low risk of infection but typically wear out faster than a fistula.

Hemodialysis catheters are usually placed into a large vein in the chest and can be used the same day. They have the highest risk of infection and wear out faster than a fistula or graft. A hemodialysis catheter is used for a short period of time while a fistula or graft is being prepared.

Careful monitoring and special maintenance procedures provide years of reliable access.

Occasionally, access problems can occur. Some fistulas don't mature completely. A blockage or stenosis can also occur that

limits the blood flow and makes hemodialysis less effective and difficult to perform. Clotting is also a possibility.

A fistulogram is needed when there's a problem with a fistula or graft. A small needle is placed into the access and x-ray dye is injected. X-rays are taken to see if there is blockage. If a blockage is found, the doctor stretches it with a balloon, which is called an angioplasty.

A declot is necessary when a patient's vascular access has completely stopped working. The doctor will place two needles into the access to remove the clot and start the access flowing again. The doctor may also perform an angioplasty during the same visit.

Hemodialysis catheter insertion is performed when a patient does not have permanent vascular access or the doctor can't fix an access that has stopped working. The doctor usually places the catheter into a vein in the chest or leg. An ultrasound is used to make sure the vein is safely punctured and an x-ray camera is used to verify that the catheter is positioned properly.

Hemodialysis catheter exchange is done when a person's catheter fails to function properly. The doctor will use x-ray dye and an x-ray camera to take pictures of the catheter and vein to find out why the catheter isn't working. An angioplasty may be needed to break up scar tissue.

Hemodialysis catheter removal is performed when a patient's permanent vascular access is working well or if the patient no longer requires hemodialysis.



Welcome to our state-of-the-art Access Center



Caring support in uncertain times.

What to expect with your access?

If you need a vascular access procedure, here is some important information you should know:

The length of your access procedure can be anywhere from one to four hours and most patients require a local anesthesia or intravenous sedatives. We recommend that patients who have been sedated remain with a friend or family member for several hours after the procedure and not drive for 24 hours.

Fistulogram, declot or hemodialysis catheter exchange – No eating or drinking after midnight or six hours prior to procedure. Do not take insulin or diabetic medications the morning of the procedure. Other morning medications can be taken with a sip of water. Please arrange transportation to and from your procedure, as patients cannot drive.

Hemodialysis catheter insertion – No eating or drinking after midnight or six hours prior to procedure. Do not take insulin or diabetic medications the morning of the procedure. Stop taking any blood thinners such as aspirin, Coumadin® or Plavix® as instructed prior to the procedure. Other morning medications can be taken with a sip of water. Arrange transportation to and from the procedure, as patients cannot drive.

Hemodialysis catheter removal – Stop taking any blood thinners such as aspirin or Coumadin® five days prior to the procedure. Stop taking Plavix® seven days prior to the procedure.



Committed to providing the highest quality access care in Michiana.

The goal of the Access Center is to help patients avoid hospitalization and missed dialysis treatments because of access related problems. We manage and prevent potential problems through continuous monitoring of our patients' accesses. Our services include scheduled and emergency dialysis access procedures.

Nephrology, Inc.

The mission of our practice is to deliver the highest level of professional care in a safe, comfortable and compassionate environment.



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