

Dialysis Definitions

Dialysis is a life-sustaining process that cleans waste products from the blood and removes extra fluids when a person's kidneys fail. Dialysis patients typically require treatment on an ongoing basis unless they receive a kidney transplant.

Hemodialysis removes extra fluid and wastes from patients' bodies by moving their blood through an external filter. The filter, known as a dialyzer or artificial kidney, is used with a dialysis machine. The amount of blood circulating outside the body at any given time is less than half a pint.

In-center Hemodialysis is a treatment provided at a dialysis facility staffed by highly trained nurses and patient-care technicians who carry out the hemodialysis process and monitor each patient throughout the treatment. Typically, in-center hemodialysis is conducted during the day, three times a week for three to five hours per session.

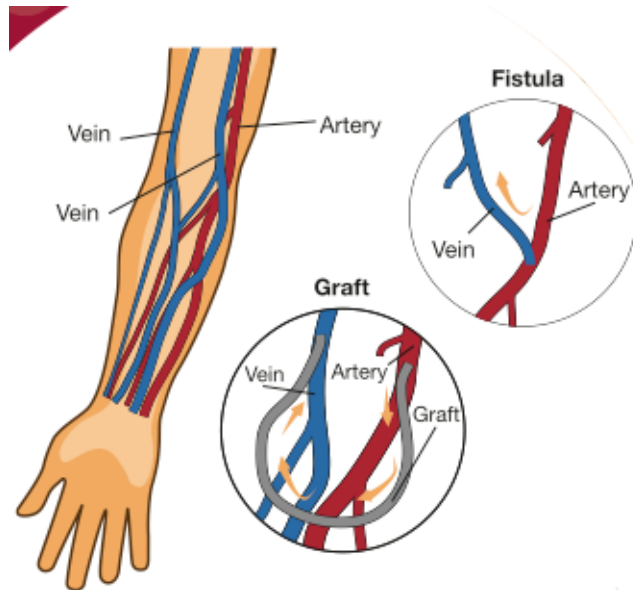
In-center Nocturnal Hemodialysis, or nighttime hemodialysis, offers patients the option of receiving their dialysis treatments at night. Usually administered three times a week for eight hours while the patient sleeps, in-center nocturnal hemodialysis can greatly improve quality of life. Because treatments are at night, patients have their days free for full-time jobs, recreation and family activities. In addition, patients often report having more energy and better dialysis results.

Home Hemodialysis is an alternative to in-center hemodialysis that allows patients to dialyze in the comfort of their own home. It can offer patients greater independence and flexibility in their dialysis treatment schedules. FMCNA provides in-center home hemodialysis training for both patients and their primary caregivers. Once training is complete, FMCNA provides all the necessary supplies and equipment and closely monitors home hemodialysis patients, who come into the clinic once a month for routine testing and to meet with their healthcare team.

Peritoneal Dialysis (PD) is another treatment that filters the blood. But instead of using an artificial kidney, PD uses the thin membrane (called the peritoneum) that lines the abdominal cavity. The peritoneum contains a large number of blood vessels. When a fluid called dialysate is introduced into the abdominal cavity, the fluid's chemical properties draw toxins out of the blood vessels, thus filtering the blood. When the filtering process is complete, the dialysate (along with the toxins) is drained from the abdominal cavity. To gain access to the cavity, a catheter (a flexible hollow tube) is surgically placed in the lower abdomen. There are two types of PD.

The most common PD treatment option is **Continuous Cycling Peritoneal Dialysis (CCPD)**. During CCPD, a machine automatically fills and drains the dialysate from the patient's abdomen. This process takes about 10 to 12 hours and is usually performed at night, while the patient sleeps.

The other type of PD is a non-mechanical treatment, called **Continuous Ambulatory Peritoneal Dialysis (CAPD)**, that gives patients total mobility and can be used at home, on the job or while traveling. It usually involves four short (half-hour) exchanges each day.



A **Hemodialysis Access** is needed to reach patients' blood during hemodialysis. For blood to flow to and from the dialyzer, access to a large blood vessel with good blood flow is needed. To create a vessel large enough, an access to the blood, usually in the arm or leg, is created during outpatient surgery.

Choosing an access is a decision patients make with their doctors early in their treatment. It typically takes several weeks to a few months for the access to heal or "mature" and be ready to use for dialysis.

A **Fistula** is a surgical connection of an artery to a vein under the skin of the arm. It's the most natural access because it's made with the patients' own blood vessels. Most people can have a fistula. However, if veins are too small or too weak for a fistula, there are other options.

A **Graft** is a surgically inserted tube that connects to a vein and an artery and is used like a fistula. If a patient has small blood vessels that won't develop into a fistula, a graft may be a good option.

Available Photos

If you are interested in obtaining photography, please call or email the following contacts for more information. Photo options include patients on in-center and home dialysis, interior clinic shots and in-center nocturnal programs, as well as diagrams relating to dialysis and kidney disease.

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