

Diseases And Conditions



Question: Dialysis

Answer: Hemodialysis is a treatment for kidney failure that uses a machine to filter your blood outside your body. At the start of a hemodialysis treatment, a dialysis nurse places two needles into your arm. A pump on the hemodialysis machine draws your blood through one of the needles into a tube, a few ounces at a time. Your blood travels through the tube to the filter, called a dialyzer. Inside the dialyzer, your blood flows through thin fibers that filter out wastes, extra salt, and extra fluid. After the dialyzer filters your blood, a different tube carries your blood back to your body through the second needle. **Staff-Assisted Home Dialysis** Many people choose to have dialysis at home, which can be much more convenient. We recommend Liberty Home Dialysis who will provide a nurse who will come to you and deliver treatment in the privacy and comfort of your own home, at a time that works for you. We recognize that it's not convenient for everyone to come to a dialysis facility three times per week. Liberty Home Dialysis works to remove all barriers to receiving dialysis by bringing the treatment to you. **In-Clinic** We have several dialysis clinic locations around the Dallas-Fort Worth area. Each and every facility we partner with is state-of-the-art and staffed with caring, licensed renal nurses. **Preparing for Dialysis** Preparations for hemodialysis should be made at least several weeks in advance. You will need to have a procedure to create an "access" several weeks or months before treatment begins, as it needs time to heal or "mature." The Dallas Renal Group works with the Dallas Vascular Center, a state of the art, Joint Commission Gold Seal-

Approved facility. Vascular access creates a way for blood to be removed from the body, circulate through the dialysis machine, and then return to the body at a rate that is higher than can be achieved through a normal vein. There are three major types of access. Your kidney doctor will recommend which option is best for you.

- **Primary AV Fistula:** This is the preferred type of vascular access. It requires a surgical procedure that creates a direct connection between an artery and a vein. This is often done in the lower arm but can be done in the upper arm as well. A primary AV fistula is usually created two to four months before it will be used for dialysis. During this time, the area can heal and fully develop.
- **Synthetic AV Bridge Graft:** The graft sits under the skin and is used in much the same way as the fistula, except that the needles used for hemodialysis are placed into the graft material rather than the patient's own vein. Grafts heal more quickly than fistulas and can often be used about two weeks after they are created. However, complications such as narrowing of the blood vessels and infection are more common with grafts than with AV fistulas.
- **Central Venous Catheter:** This method uses a thin flexible tube that is placed into a large vein, usually in the neck. Catheters have the highest risk of infection and the poorest function compared to other access types. They should be used only if a primary AV fistula or synthetic bridge graft cannot be maintained.

PERITONEAL DIALYSIS Peritoneal dialysis is an alternative to hemodialysis that utilizes the membrane that lines the peritoneal cavity within your abdomen. With this method, you will have a catheter placed in your abdominal cavity which is used to fill your abdomen with dialysis solution. Once the dialysis solution fills your abdominal cavity, the membrane lining, called the peritoneum, allows wastes and excess fluid to pass from your blood into the dialysis solution. The wastes and excess fluid then leaves your body when the dialysis solution is drained. There are two methods of peritoneal dialysis. One can be done manually, in a method called Continuous Ambulatory Peritoneal Dialysis (CAPD). The other uses a machine while you sleep, called Continuous Cycling Peritoneal Dialysis (CCPD). Both methods are done 7 days per week, and are performed by the patient following a several week training program. This peritoneal dialysis has comparable risks and benefits. Your kidney doctor will review the treatment options with you to determine the best solution.