

Treatment Options



KIDNEY STONE REMOVAL

Kidney stones vary in size and shape. A small kidney stone may pass through your urinary tract on its own, causing little or no pain. A larger kidney stone may get stuck along the way. A kidney stone that gets stuck can block your flow of urine, causing severe pain or bleeding. Here are three different kidney stone removal methods.

- Shock wave lithotripsy blasts the kidney stone into small pieces. The smaller pieces of the kidney stone then pass through your urinary tract. A doctor can give you anesthesia during this outpatient procedure.
- Cystoscopy and ureteroscopy. During cystoscopy, the doctor uses a cystoscope to look inside the urethra and bladder to find a stone in your urethra or bladder. During ureteroscopy, the doctor uses a ureteroscope, which is longer and thinner than a cystoscope, to see detailed images of the lining of the ureters and kidneys. The doctor inserts the cystoscope or ureteroscope through the urethra to see the rest of the urinary tract. Once the stone is found, the doctor can remove it or break it into smaller pieces. The doctor performs these procedures in the hospital with anesthesia. You can typically go home the same day.

- Percutaneous nephrolithotomy is a procedure in which the doctor uses a thin viewing tool, called a nephroscope, to locate and remove the kidney stone. The doctor inserts the tool directly into your kidney through a small cut made in your back. For larger kidney stones, the doctor also may use a laser to break the kidney stones into smaller pieces. The doctor performs percutaneous nephrolithotomy in a hospital with anesthesia. You may have to stay in the hospital for several days after the procedure.

DIALYSIS

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.

TRANSPLANTATION

Transplantation is the only treatment for chronic kidney disease and end-stage renal failure. Since kidney function cannot be restored, people with the disease must maintain their health through dialysis treatments. That's why we encourage our patients who qualify to join the transplant waiting list. Some of our patients who have received a transplant were only on the waiting list for a matter of months. While that varies from patient to patient, we see great success in transplantation. Our physicians and care team have excellent resources for those who are interested in and qualify for a kidney transplant. Learn more about transplantation here.

<https://www.kidney.org/transplantation>

<https://www.unos.org>