

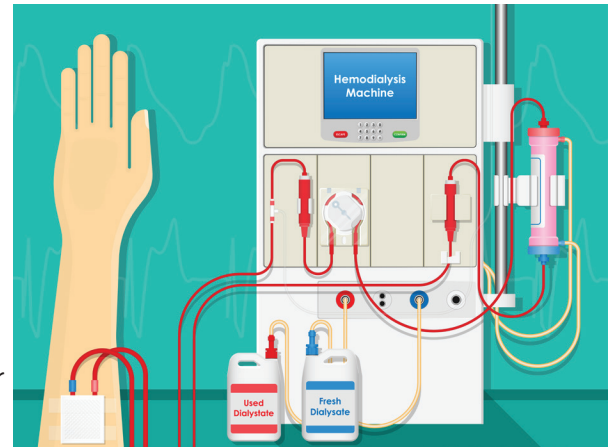
Modality Options

If you have reached late-stage chronic kidney disease, you may be having the conversation with your nephrologist about what your next steps are to remain as healthy as possible with non-functioning kidneys. Once you reach stage 5 chronic kidney disease (CKD), you will need to decide on a treatment option to filter your blood properly. Typically your options are in the form of dialysis or a kidney transplant or conservative medical management. There is no cure for CKD, but these options can help you lead a comfortable lifestyle.

Hemodialysis

The most commonly recognized form of dialysis is Hemodialysis. This form of dialysis moves your blood from inside your body to a dialysis machine where it is cleaned and filtered. Once your blood has been rid of waste products and excess fluids, it is sent back into your body. This process also helps in managing blood pressure and maintaining the appropriate levels of minerals such as potassium, sodium and calcium in your blood.

In order to participate in hemodialysis, you will need to undergo a minor surgical procedure to have a vascular access implanted into your arm. This will enable you to be connected to the dialysis machine so that high volumes of blood can be transferred to the machine, cleaned, and returned to your body.



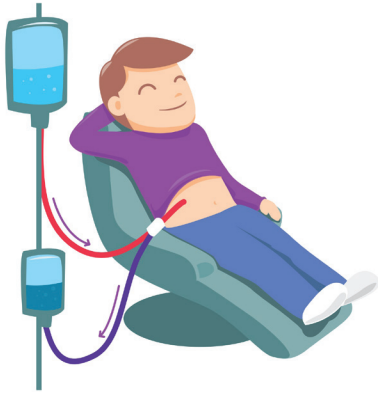
In-Center Hemodialysis: One way to receive hemodialysis is by going to a local dialysis facility. Patients typically undergo hemodialysis approximately 3 times per week for 4 hours each session. You will have the help of the facility staff to get you hooked up to the dialyzer and manage your progress through the appointment. This also means that because you must physically go to a center to complete your dialysis, you are somewhat limited in things like travel. You also may risk feeling more significant ups and downs in between your appointments because you are not receiving treatment every day.

Home Hemodialysis: Another option you have if you choose hemodialysis is administering your dialysis treatments at home, on your own time & schedule. This option requires special training so that you and/or a partner are trained in how to properly connect yourself to the dialysis machine and monitor your progress through the process. You can dialyze on a more frequent basis as you don't have to travel to a center, which enables you the flexibility in your schedule to travel and live life. Additionally, home dialysis offers the benefit of less restrictive diets and fluid restrictions.

Peritoneal Dialysis

Like hemodialysis, peritoneal dialysis filters out excess waste and fluid from your blood, taking over the job of your damaged kidneys. This type of dialysis, however, completes the filtration inside your body by using the lining of your abdomen. If you plan on doing peritoneal dialysis, a surgeon will implant a catheter into your abdomen, a minor outpatient surgical procedure. This catheter will be connected to a saline solution called dialysis solution that is transferred through the catheter and into your abdominal cavity. Waste and excess fluid is soaked up by the solution, which you eventually drain from your catheter once the process is complete. Once you have drained the liquid full of waste and excess fluids, you will begin the process again, making sure that you always have the dialysis solution in your abdominal cavity. There are two types of peritoneal dialysis which can be used on their own or in conjunction with each other:

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Continuous Ambulatory Peritoneal Dialysis: With this option, there is no machine involved. You are able to complete this process on your own in any clean and well-lit location. The dwell time (amount of time that the dialysis solution is in your abdomen per cycle) can range from 4-6 hours, or more in some cases. This means you will likely need to change your dialysis solution four or more times throughout the day. The exception is while you sleep, where you do not need to change out the solution in the middle of the night.

Continuous Cycler-Assisted Peritoneal Dialysis: This option occurs overnight while you sleep. You would hook your catheter up to a machine known as a cycler. This machine fills the catheter with the dialysis solution and then empties the contaminated solution between three and five times each night. The final dose of

dialysis solution would be administered in the morning when you wake up and you would go about your day with that same solution.

Kidney Transplantation

Kidney transplant is considered the treatment of choice for kidney failure in the US. This option consists of having a healthy kidney transplanted in your body so that it can take over the duties of your damaged kidneys. While we are born with two kidneys, you can lead a healthy life with just one kidney.

There are generally four ways you can receive a kidney transplant. They are: a living-related transplant (from a blood relative), a living-unrelated transplant (from a spouse or friend), a deceased donor kidney (from a person who upon their death has donated their organs) and an anonymous donation (where a person, much like donating blood, agrees to donate a kidney to someone in need).

Most kidney transplants are placed in your lower abdomen, below where the kidneys you were born with are located. Additionally, receiving a transplant does not involve the removal of your damaged kidneys unless they have succumbed to infection or there are other issues.

Medications will also be prescribed that you will be required to take for the remainder of your life so that your body does not confuse the transplanted kidney as a threat and try to attack it. These medications are referred to as immunosuppressants.

Determining which renal modality option is right for you is a big decision. Make sure to consult with your nephrologist and have them answer any questions you have before making a final decision.

Sources:

<https://www.niddk.nih.gov/health-information/kidney-disease/kidney-failure/choosing-treatment>

<https://www.kidney.org/atoz/content/choosingtreat>

<http://www.rsnhope.org/dialysis-options/>

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