

Lifeblood Foundation - Kidney Disease Education: Introduction to Modalities Video Script (2021 Edition)

Hi, this is Doctor TJ.

Today, let's discuss selecting the available types of treatment to replace the function of kidneys that have failed. These are called "modalities" of treatment, and in this lesson, I'm briefly going to discuss the differences between these modalities so you will have a working knowledge of each, and can decide which one, if any, you would want to choose.

I understand that these are heavy, anxiety-causing topics that can cause fear and concern.

Some of those listening have been fighting off kidney disease and kidney failure for years. Others have forms of kidney disease that have progressed quickly, despite attempts to stop their progression.

But everyone listening is concerned and maybe even fearful of dialysis and what it could mean to your life.

Believe me, those feelings are understandable and normal. However, you cannot let those anxieties paralyze you and prevent you from considering your options as far in advance as possible and making a plan so what happens is what you want done.

The point of these courses is to give you enough reliable information to confront the future prepared and knowledgeable.

And here's another point, I want to make right at the beginning. If dialysis is unavoidable, which type you undergo is your choice, not someone else's. So, don't be pressured by anyone to pick a modality of dialysis that you don't really want.

And this is also really important: If you feel your quality of life is already very bad due to your current medical condition or if you feel treating your kidney failure with dialysis would make your life worse it's all right to not start dialysis. Your doctor and you can come up with a plan to manage your symptoms. This is often referred to as "conservative management" and is an option for you.

If you decide that you do not wish to undergo dialysis, there are no laws or religions that say that letting a medical condition take its course is wrong or illegal. But if you do make the decision not to undergo dialysis, be certain that it's in writing so nobody can overrule your decision. Your decisions need to be respected.

Currently there are three modalities used to treat kidney failure: Hemodialysis or "HD", peritoneal dialysis or "PD" and kidney transplant.

Now, since there's a whole separate course on kidney transplant, I'll just mention it in passing in this course. I want to make it abundantly clear that if you can safely get a kidney transplant, that's the best treatment for kidney failure. Dialysis should only be a bridge to getting a transplant unless there is a medical reason that you can't get a transplant.

You are not alone! There are about three-quarters of a million Americans on dialysis today. About half a million of them are on HD with about 200,000 on PD. About thirty-thousand kidney transplants are performed each year in the U.S.

Dialysis of any kind is typically started when the symptoms of kidney failure reach a point that the medications taken during advancing kidney insufficiency no longer work, and the patient can no longer tolerate the symptoms of the disease. The symptoms associated with kidney failure that signal "it's time for dialysis" typically are excessive fluid accumulation that can't be relieved with diuretics, severe lack of appetite for food, nausea, itching and severe sleepiness. That usually occurs when the kidney function declines to about 10 to 15 Units of kidney function.

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So, what are the dialysis options?

Hemodialysis is the one most commonly used currently in the United States. The word “hemo” in hemodialysis means “blood”. This modality of treatment is a process where blood removed from the body is circulated on one side of a thin, porous membrane and a clean salt solution is circulated by on the other side of the membrane. That allows the built-up waste products in the blood to filter through the membrane from the blood into the salt solution to be carried away and dumped and then the cleaned blood is returned to the patient. There are about six thousand dialysis clinics in the U.S., although there are rural areas where the closest clinic may be a significant distance from some patients’ residences.

Peritoneal dialysis gets to the same place, but through an entirely different method. With PD, the thin, porous membrane that lines the outside of all the organs on the inside of the abdominal cavity (your gut) called the “peritoneal membrane” is used to remove the toxic waste products the kidneys can no longer get rid of. For this modality, a patient must have a thin clear plastic tube inserted into your abdomen (near your belly button) by a surgeon, called a “PD catheter. When a sterile, clean salt solution is placed into the abdominal cavity through the “PD catheter” the waste products will travel through the peritoneal membrane and dissolve into the salt solution, which is then emptied out into a sterile bag and replaced every few hours with clean fluid from a new bag.

The treatments can be done at home or anywhere that there's a quiet and clean place to exchange fluid bags for treatments, so it's less restrictive in terms of travel and work.

With hemodialysis in a dialysis clinic, you must travel from home to a dialysis clinic for a specific appointment at that clinic three times each week for the rest of your life. That's one hundred fifty-six four-hour HD treatments each year.

If you do your HD treatments at home, the treatments can vary in length and the days and time of day can be varied to better fit your individual schedule, but the total number of hours on treatment each week has to remain at least equal to the same number of hours you would get in a clinic, which is about twelve hours.

There are other considerations for home hemodialysis: including the need to have reliable electrical and water connections and someone to assist with treatments, both in helping you get on and off treatment and being available if something goes wrong during a treatment and you need assistance.

With either kind of dialysis you must continue dietary restrictions of one kind or other regardless which modality you choose.

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