

# My Treatment: Am I Getting Enough Hemodialysis?

Healthy kidneys work 24 hours a day, 7 days a week. When kidneys stop working well, dialysis is needed to remove fluid and waste products, such as urea, from the blood. When you have high levels of urea in your body, it can mean that other harmful toxins are also building up. Dialysis only filters a portion of what a healthy kidney does.

Adequate dialysis means your treatment is removing enough urea and fluids to help you live long and well even with kidney disease. When you start dialysis, part of your kidneys may still be working to remove some toxins and fluid. Over time, your kidneys will work less, and your dialysis needs will change. Your care team will look at several factors to find out if you are getting enough or “adequate” dialysis.

## Why Is It Important to Get Enough Dialysis?

Dialysis treatment replaces only a small part of your kidney function. It is very important that you get enough dialysis. Over time, if you do not get enough dialysis, you can increase your risk of infection, hospitalization, and death. Getting enough dialysis will help you live long and well. You can get too little dialysis, but never too much.

Poor dialysis may cause:



you to feel ill



your skin to itch or turn yellow or darken



you to feel short of breath



you to not want to eat



your hands, feet or ankles to swell up with fluid



you to feel depressed



you to lose weight



you to feel tired or weak



your thinking to be slower



## How Is Adequacy Measured?

Just like your medications, dialysis is measured in doses. Your doctor will prescribe a dose of dialysis. Your urea reduction ratio (URR) and Kt/V score will tell you and your care team if you are getting enough treatment. Each month, the clinic will test your blood to see whether dialysis is removing enough urea or blood urea nitrogen (BUN). Blood is sampled at the start of dialysis and at the end. The levels of urea in the two blood samples are then compared.

- **URR** means the reduction in urea as a result of dialysis. It is determined by the amount of urea removed during dialysis and is shown as a percentage. The URR should be 65 percent or higher to ensure you are getting enough dialysis.
- **Kt/V** is another way of measuring dialysis adequacy. It is more accurate than URR alone, because it also looks at the amount of urea removed with extra fluid.
  - **K** = Dialyzer Clearance: The rate at which the blood passes through the dialyzer
  - **T** = Time: How long each treatment lasts
  - **V** = Volume: The amount of fluid in your body
  - **Kt/V** = Dialysis clearance multiplied by time is divided by the volume of fluid
- Your Kt/V should be 1.2 or higher to ensure you are getting enough dialysis.

## How Can I Improve My Dialysis Adequacy?



Go to all your dialysis treatments



Be on time for your treatment



Stay until the end of each treatment



Take all your medications as prescribed



Make up all minutes lost because of machine alarms or bathroom trips



Double check your machine settings to make sure the flow rate is correct



Keep to your fluid limits. Big gains are harder to remove which can cause cramping



Report any changes with your dialysis access



Your doctor may change your dialysis dose to increase your URR and Kt/V by increasing your time on dialysis, the blood flow rate during dialysis, needle size, and/or the size of the dialyzer.

## My Questions: Ask Your Care Team

- What are my adequacy numbers?
- What should I do if I miss a treatment?
- What if I can't stay my full treatment?

Source: [www.niddk.nih.gov](http://www.niddk.nih.gov)

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For more information or to file a grievance, please contact:

ESRD Network 10 at: 911 E. 86th St., Suite 202 | Indianapolis, IN 46240 | Toll Free Patient Line (800) 456-6919 | [ESRDNetwork10@qsource.org](mailto:ESRDNetwork10@qsource.org) | [ESRDNetwork10.org](http://ESRDNetwork10.org)

ESRD Network 12 at: 920 Main, Suite 801 | Kansas City, MO 64105 | Toll Free Patient Line (800) 444-9965 | [ESRDNetwork12@qsource.org](mailto:ESRDNetwork12@qsource.org) | [ESRDNetwork12.org](http://ESRDNetwork12.org)