What is home dialysis?

Home dialysis has been available to ESRD patients since the 1960s. While in some countries, such as Australia and Canada, up to 27% of dialysis patients receive dialysis at home and not in a dialysis facility, only about 11.5% of U.S. dialysis patients currently receive dialysis at home. This contrasts with data that shows as many as 40% percent of U.S. ESRD patients could be appropriate home dialysis candidates.

One major cause for this disparity in home dialysis use is a lack of patient and caregiver education around home options. When educated about home-based treatment, between 40% and 50% of patients choose this option. However, the current utilization rate suggests that some healthcare providers are not recommending home therapies to patients, furthering the lack of awareness among patients and their families. In addition, patients who are familiar with or who have been educated about home dialysis often rely on incorrect information, such as being told that clinics are safer than the home environment. However, with proper training, home dialysis is just as safe as in-center dialysis. Thus, dialyzing at home is often more comfortable and convenient for patients.

The benefits of home dialysis have been well-documented in peer-reviewed medical literature, including improvements in physical health, mental health, and nutritional status. Patients who receive peritoneal home dialysis often have fewer side effects, such as nausea and weight gain, and also may use fewer medications and have fewer dietary restrictions than patients who receive hemodialysis three times per week. Furthermore, patients who dialyze at home can be better candidates for eventual kidney transplantation because they dialyze more frequently.

Home dialysis also provides significant economic and lifestyle advantages, including:

- Greater autonomy and flexibility over when a patient dialyzes, including the ability to dialyze at night while the patient sleeps.
- Reduced dependence on transportation, as there is no travel to a clinic for treatments; and
- Greater likelihood that patients will be able to continue to work and travel.

In fact, according to a national survey of nephrologists, 92% of these clinicians said that they would choose home dialysis for themselves. Only 6% of clinicians said that they would choose traditional in-center dialysis. One clinician, Stanford University nephrologist Dr. Manjula Tamura, explained: “It sounds so complicated and intimidating, but when you sit down with patients and show them what’s involved, they’re surprised at how simple it is.”

Perhaps even more telling are the many positive stories from home dialysis patients. A home peritoneal dialysis patient, Ward Shankanah, summed up his experience: “It [home dialysis] gives me a life again.” Home dialysis has given other patients the freedom to bike hundreds of miles, the flexibility to continue working not one, but two jobs; the energy to care for their children and be present in their lives; and the time to engage in hobbies like golf and gardening.

Types of Home Dialysis

Currently, there are two types of home dialysis: peritoneal dialysis (PD) and home hemodialysis (HHD). PD is the more widely available form of home dialysis, and it uses an individual’s abdominal cavity to filter waste through a series of exchanges. During PD, a cleansing fluid (dialysate) is circulated through a catheter that is placed inside part of your abdominal cavity. The dialysate absorbs waste products from blood vessels in your abdominal lining and is then drawn back out of your body and discarded. These exchanges occur several times during a 24-hour period and can be done at home or in the workplace. Individuals treated with PD can also use a machine, known as a cyclor, at night to perform exchanges while sleeping. A recent survey found that between 2010 and 2012, home patients represented about 20% of the growth in ESRD patients, largely attributed to the growth in PD.

Hemodialysis (HD) is a treatment in which an artificial membrane, known as a dialyzer, filters the blood. Patients are connected to a set of tubes, with one tube taking blood to the dialyzer to be filtered and the other tube returning cleaned blood to the body. HD is performed using the same type of dialysis machine used in a dialysis facility or a portable machine, both of which require assistance by a spouse or caregiver. Most often, HD therapy is done 5-6 times a week.

Am I a Candidate for Home Dialysis?

If you are interested in dialyzing at home, you should ask yourself the following questions:

1. Are you and your spouse or caregiver motivated to attend training and learn how to use your home dialysis machine?
2. Do you have the space and ability to set up an area in your home for dialysis?
3. Do you have generally good mobility and health outside of your dialysis needs?
4. Do you have a spouse/friend/other person who could serve as your care partner? (only for HHD)

If the answers to these questions are yes, you could be a good home dialysis candidate. However, if you lack reliable electricity, are unable to perform basic personal hygiene tasks, or have uncontrolled medical conditions like dementia or seizures, you may not be a good candidate.

In addition, you may have heard some common misconceptions about home dialysis that have dissuaded you from this option. Though many people believe that you cannot dialyze at home while having pets or plants, if you can provide a “pet or plant free” room for your dialysis, you could still be a good candidate. Also, some people believe that home dialysis patients cannot swim or take baths; however, clean chlorinated pools are acceptable for PD patients who can bandage their catheter site.

People of Color Often Have Less Access to Dialysis at Home

Today, there are significant disparities in utilization of home dialysis by race. African American dialysis patients are almost 36% less likely than average to receive the more widely available form of home dialysis (peritoneal) and 16% less likely to receive hemodialysis than average, while Hispanic dialysis patients are about 13% less likely than average to receive peritoneal and about 42% less likely than average to receive home hemodialysis. Some have suggested the reason for these disparities may be due to healthcare delivery issues, such as availability of nephrology care in the community or physician perception of whether minority patients have the ability to adequately perform home dialysis related tasks. Very little systematic research has been done on these issues; however, one analysis concluded that patients living in majority black communities are significantly less likely to have received nephrology care before beginning dialysis than people living in majority white communities.

Black Americans are three times more likely than White Americans to develop kidney disease and to require dialysis.

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